



THE EXCEPTIONAL
CHILD

CORRELATION OF CHAPTERS OR SELECTIONS IN OTHER TEXTS ON EXCEPTIONAL CHILDREN WITH SPECIFIC SELECTIONS IN THIS BOOK

Chapters in Listed Texts	Baker 1959 (Parts)	Cruickshank 1955	Cruickshank and Johnson 1958	Garrison and Force ¹ 1959	Goodenough 1956 (Parts)	Heck ² 1953	Henry 1950	Loutitt 1957	Magnifico 1958
	[SELECTION NUMBERS IN THIS BOOK]								
1	1, 10	—	1, 5, 6	—	1, 3, 4-6	1	1, 4, 5	4	1, 2
2	46-54	4, 55, 57	4	4, 6	65-70	51	—	—	51, 10
3	17-21	38-40	2, 3	7, 10	7-14, 16	48-50	4	57	65-67, 71
4	7, 10-13, 65-71	41-45	65-71	15, 16	55-58 41-45	—	—	7-11, 14-16	3, 4
5	55-59	32-36	7, 8, 11, 12, 16	11-13	32-36, 38-40, 17-26, 27-31	—	16, 31	57-58	12, 15, 16
6	32-36, 38-40	20, 23, 25	13, 14	66, 67	—	—	—	55-56, 59	11, 13, 14, 16
7	41-45, 22-31	21	35, 36	66, 71	—	—	6, 14	65-71	68-70

37/19

8	5, 6, 14	29, 30	33, 34	65, 68-70	—	46, 53, 52	32-36	46-47	51-54
9	—	7, 8, 10, 14-16	38-40	32-36	—	22, 23, 25	38-40	50	22-24, 32, 34, 35, 42-45
10	—	66, 67, 71	41-45	38-40	—	24	41-45	51-54	3, 4, 5
11	—	4, 6, 15, 50	22-26	41-45	—	28-31	22-26, 29	41-45	—
12	—	—	27-31	22-26	—	32-34	21, 27, 30	32-34, 38-40	—
13	—	—	46-53	17-19	—	—	7, 8, 10-13	17-21, 23, 28-30	—
14	—	—	4, 15	20	—	35	65, 67, 71	—	—
15	—	—	3, 14, 4	21	—	36	51-53	—	—
16	—	—	—	29	—	32	—	—	—
17	—	—	—	30	—	—	54, 71	—	—

1578

¹ Additional Garrison and Force: Chap. 18: 46-47; Chap. 19: 51-54; Chap. 20: 48-50.

² Additional Heck: Chap. 18: 39, 40; Chap. 20: 38; Chap. 21: 41-45; Chap. 23: 7, 11-13; Chap. 24: 7, 16; Chap. 25: 8, 9; Chap. 26: 66, 67; Chap. 27: 65, 68; 70; Chap. 28: 71; Chap. 30: 1; Chap. 33: 4; Chap. 34: 71, 54.

THE EXCEPTIONAL CHILD

The Exceptional Child

A BOOK OF READINGS

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PREFACE

This book is basically a book about children. The emphasis is on exceptional children, or children physicians, psychologists, and educators have felt would benefit from special considerations, special services, or a special curriculum in their daily school routine. (A reasonable estimate of the number of children who are "exceptional" in this sense is at least 12 percent of the school population. However, modern educational philosophy has emphasized the uniqueness of all children and has suggested that each child is "exceptional" in one or more ways. An understanding of children who are to a marked extent different intellectually, socially, or physically should therefore contribute to the teacher's understanding of children generally considered to be "average."

The educator of today, unlike the country-school master of years past, can no longer be an expert on all aspects of education. Nor, for that matter, can he be an expert on the education, rehabilitation, and psychology of exceptional children. This text is therefore a cooperative endeavor, drawing on the writings of specialists in education, psychology, social work, and medicine. The common bond of the various selections is that each contributes to our understanding of children who are exceptional.

The emphasis in this volume is on the "child who has a handicap" rather than on the "handicapped child," because the editors believe that it is the *individuality* of each child who is exceptional which requires stress. The reader will recognize also that children who are exceptional often have handicaps whose treatment requires an understanding to be derived from not just one but several chapters. He will realize that there are many children with multiple handicaps, and will find several readings in the book that discuss this problem.

In this book one chapter is devoted to the child who is culturally

handicapped and another to the child who is educationally retarded. Although it is true that these two groups are often omitted from survey courses in the area of exceptional children, the editors feel that they do require special consideration and have, therefore, included readings that will help the teacher serve these children better.

Books of readings are an increasingly popular phenomenon on the educational publishing scene, because teachers and students have found such books to be an efficient, time-saving way of reading original materials by outstanding specialists in various fields. As an addition to a personal, small college, or community library, a book of readings brings together a number of otherwise inaccessible articles into a compact volume.

One limitation of a book of this kind is the inevitable lack of uniformity in the frame of reference, style, and vocabulary of different writers. The editors have therefore prefaced each chapter and each selection with material aimed at providing continuity and clarification. Since discussion concerning the mentally retarded child and the gifted child consumes a greater proportion of class time than other topics in most survey courses on exceptional children, this book provides proportionately more readings in these two areas.

The readings have been selected on the basis of the editors' experience in teaching courses on exceptional children, as well as their professional experience in various other settings. Criteria used in selecting the materials were as follows: (1) competent expression of an important view or trend in the education, rehabilitation, or psychology of exceptional children; (2) contributions to the classroom teacher's understanding of exceptional children; (3) clarity, brevity, and other stylistic considerations. Some articles by outstanding authorities were considered too technical for the undergraduate reader, and were excluded for this reason.

Because a book of readings is dependent on the authors' and publishers' permission to reprint material, the editors wish to express their gratitude to all those who have made this book possible by so kindly giving permission to include their scholarly and creative endeavors. The editors are also indebted to many professional colleagues, who have given thoughtfully of their time and assistance, and to Frances Eichorn, for her sympathetic understanding during the editorial process. We are especially grateful to Ruth Barker, Bernard Bearer, Eugene

Brockopp, Edgar Doll, Edward French, Jean Flicop, Henry Platt, Robert Peck, Joan Sprigle, Godfrey Stevens, Alan Sutherland, Gloria Von Hebel, and Harley Wooden.

The chart presented on the inside covers correlates the readings in this book with a number of general texts on the psychology and education of exceptional children. The left-hand column lists the chapters or sections of the general textbooks; the other columns list, by number, the readings in this book that are appropriate to specific chapters. The texts which were selected are as follows:

- Baker, Harry J., *Introduction to Exceptional Children*, 3d ed. Macmillan, 1959.
- Cruikshank, W. M., *Psychology of Exceptional Children and Youth*. Prentice-Hall, 1955.
- Cruikshank, W. M., and Johnson, G. O., *Education of Exceptional Children and Youth*. Prentice-Hall, 1958.
- Garrison, Karl C., and Force, Dewey G., *Psychology of Exceptional Children*, 3d ed. Ronald Press, 1959.
- Goodenough, Florence, *Exceptional Children*. Appleton-Century-Crofts, 1956.
- Heck, Arch O., *Education of Exceptional Children*, 2d ed. McGraw, 1953.
- Henry, Nelson B., ed., *Education of Exceptional Children*. 49th Yearbook, Part II, National Society for the Study of Education. The University of Chicago Press, 1950.
- Loutitt, C. M., *Clinical Psychology of Exceptional Children*, 3d ed. Harper, 1957.
- Magnifico, L. X., *Education for the Exceptional Child*. Longmans, 1958.

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CONTENTS

1. The Exceptional Child in Contemporary Society	1
1. <i>Why Special Education</i>	3
T. ERNEST NEWLAND	
2. <i>The Teacher and the Handicapped Child</i>	9
LEO F. CAIN	
3. <i>The Preschool Area of Special Education</i>	15
FRANCES A. MULLEN	
4. <i>Psychological Services in Special Education</i>	23
RUDOLPH J. CAPOBIANCO	
5. <i>The Minority Status of the Handicapped</i>	27
JOHN W. TENNY	
6. <i>The Place of the Exceptional Child in the Family Structure</i>	33
LEO KANNER	
2. The Child with Retarded Mental Development	43
7. <i>Factors in Mental Retardation</i>	45
GEORGE JERVIS	
8. <i>Emotional Disturbances Simulating Mental Retardation</i>	53
LEO KANNER	
9. <i>A Case of Extreme Isolation</i>	67
KINGSLEY DAVIS	
10. <i>Prevalence of Mental Retardates</i>	69
J. E. WALLACE WALLIN	

11.	<i>Goals for the Mentally Retarded</i>	76
	HAROLD A. DELP	
✓ 12.	<i>Current Trends and Practices in the Education of the Mentally Retarded</i>	85
	MARION J. ERICKSON	
13.	<i>Planning for the Severely Retarded Child</i>	96
	WILLIAM M. CRUICKSHANK	
✓ 14.	<i>Aspects of a Community Program for the Retarded Child</i>	105
	SEYMOUR B. SARASON	
15.	<i>Counseling for Psychological Acceptance: The Mentally Retarded</i>	111
	SAMUEL A. KIRK	
✓ 16.	<i>Vocational Rehabilitation for the Mentally Retarded</i>	118
	SALVATORE G. DI MICHAEL	
3.	The Child with a Neurological Handicap	125
✓ 17.	<i>Behavioral Syndromes of CNS Impairment</i>	127
	EDGAR A. DOLL	
✓ 18.	<i>The Education of the Brain-Injured Child</i>	135
	ALFRED A. STRAUSS	
19.	<i>A Proposal for Clarification of the Terminology Used to Describe Brain-Injured Children</i>	144
	GODFREY D. STEVENS AND JACK W. BIRCH	
20.	<i>The Child with Cerebral Palsy</i>	151
	MEYER A. PERLSTEIN	
✓ 21.	<i>Children with Epilepsy</i>	156
	JOHN W. TENNY AND MARGARET A. LENNOX	
4.	The Child with an Orthopedic Handicap	160
✓ 22.	<i>Educational Abilities and Needs of Orthopedically Handicapped Children</i>	162

MAURICE H. FOURACRE, GLADYS REID JANN,
AND ANNA MARTORANA

23. *Social and Emotional Development in the Adolescent Crippled* 171

LAWRENCE K. FRANK

24. *School Housing for the Crippled Child* 177

ROMAINE MACKIE

25. *Some Problems of the Amputee Child in School* 183

JEROME SILLER AND EDWARD PEIZER

26. *Rehabilitation in the Schools* 187

EVELYN DAVIES

5. The Child with a Handicapping Medical Condition 196

27. *Children Left Behind: At Home, in Hospitals* 198

EDWARD A. RICHARDS

28. *Psychological Problems of Poliomyelitis* 206

MORTON A. SEIDENFELD

29. *The Cardiologist Looks at the School Child* 216

CARL J. MARIENFELD

30. *Children with Tuberculosis* 221

GEORGE M. WHEATLEY AND ARTHUR ROBINS

31. *Rehabilitation Program in Muscular Dystrophy* 227

GEORGE G. DEAVER

6. The Child with a Visual Handicap 233

32. *Causes of Blindness in Children of School Age* 235

C. EDITH KERBY

33. *The Child Who Is Blind* 250

BERTHOLD LOWENFELD

34. *The Blind Child in the Regular Classroom* 258

DORIS GRAY

35. *Education of Partially Seeing Children* 266
HAZEL C. MC INTIRE
36. *The Adjustment of the Partially Seeing Child
in the Regular Classroom* 270
ANTHONY J. PELONE
37. *Color Blindness* 279
GEORGE A. PETERS

7. The Child with a Communication Handicap 286

38. *The Child Who Is Hard of Hearing* 288
ALICE STRENG
39. *The Meaning of Severe Deafness in the Life
of the Young Child* 294
ROBERT E. ROACH
40. *Adjustment Problems of the Deaf Child* 304
GRACE M. HEIDER
41. *Speech—An Index of Maturity* 311
DUANE C. PRIESTERSBACH AND MC KENZIE W.
BUCK
42. *Speech Defects* 317
ELISE HAHN
43. *Problems of Articulation* 322
DOROTHY MULGRAVE
44. *Helping Stutterers in the Classroom* 327
JOHN E. LENT
45. *Teaching Aphasic Children* 330
FRANK R. KLEFFNER

8. The Child with a Social-Emotional Handicap 338

46. *Emotionally Insecure and Disturbed Children* 340
DARREL J. MASE

47.	<i>A Process for Identifying Disturbed Children</i>	345
	ELI M. BOWER	
48.	<i>Dealing with Emotional Problems in the Classroom</i>	354
	LOUIS E. HARPER AND BENJAMIN WRIGHT	
49.	<i>Special Part-time Classes for Emotionally Disturbed Children in a Regular Elementary School</i>	368
	JOHN W. HOWE	
50.	<i>Facilitating the Results of Therapy</i>	374
	PALMER A. GRAVER	
51.	<i>What the School and Community Can Do to Prevent and Control Juvenile Delinquency</i>	380
	WILLIAM C. KVARACEUS	
52.	<i>Dealing with Problem Youth</i>	390
	ROBERT J. HAVIGHURST	
53.	<i>Police-Teacher Amity</i>	397
	WILLIAM W. WATTENBERG	
54.	<i>Research Needs in the Delinquency Field</i>	400
	FRITZ REDL	
9.	The Child Who Is Educationally Retarded	410
55.	<i>Using Clinical Services in the Remedial Program</i>	411
	EMMETT A. BETTS	
56.	<i>Reading Retardation: Analysis and Differentiated Instruction</i>	420
	MARY C. SERRA	
57.	<i>Psychological Factors in Cases of Reading Difficulties</i>	427
	EDWARD L. FRENCH	
58.	<i>Psychological Determinants of Spelling Success</i>	437
	EDNA LUE FURNESS	

59.	<i>Results of a Program of Remedial Education</i>	444
	JAMES C. COLEMAN	
10.	The Child with a Cultural Handicap	452
60.	<i>Social Differences among Children</i>	455
	EVELYN D. ADLERBLUM	
61.	<i>Rejected Minority-Group Children</i>	460
	KENNETH B. CLARK	
62.	<i>The American Indian Child</i>	466
	ALETA BROWNLEE	
63.	<i>Teaching American Children from Spanish-Speaking Homes</i>	474
	SIMON CHAVEZ AND TWILA LEE ERICKSON	
64.	<i>Effects of Migrancy on Schooling</i>	482
	SHIRLEY E. GREENE	
11.	The Child Who Is Gifted	490
65.	<i>Major Issues in the Education of Gifted Children</i>	491
	LEWIS M. TERMAN AND MELITA H. ODEN	
66.	<i>The Gifted Child in the American Culture of Today</i>	495
	MARGARET MEAD	
67.	<i>Identifying Gifted Children</i>	501
	ROBERT F. DE HAAN	
68.	<i>Current Practices in Educating the Gifted Child</i>	508
	PAUL WITTY	
69.	<i>What Is Enrichment?</i>	521
	WALTER B. BARBE	
70.	<i>Acceleration for the Gifted</i>	524
	WILLARD ABRAHAM	
71.	<i>Research on the Gifted</i>	529
	MIRIAM L. GOLDBERG	
	<i>Index</i>	555

The Exceptional Child in Contemporary Society

Children differ from each other in a variety of ways: physically, intellectually, socially, emotionally. In most cases, such differences are of little significance, and yet some children deviate from the "average" or "normal" to such a degree that they need special attention. These are "exceptional" children.

There is no complete agreement about who should be classified as exceptional. Most professional people concerned with children and their problems do agree that those who deviate significantly in intelligence, or who have a severe crippling condition, should be considered as exceptional. Some also include children with severe emotional or social maladjustment. Less frequently, children who are educationally retarded or culturally handicapped are also included.

Although there is no agreement about who should be classified as exceptional, most educators agree that those who are so classified should receive special services. These services fall chiefly in the realm of certain professional fields, such as medicine, psychology, education, and rehabilitation; but in most cases the coordinated services of more than one discipline, in addition to those of the home, are required to enable such children to attain the growth and development necessary for adequate adult adjustment.

The problem of exceptional children is not new. Throughout the centuries some consideration has been given to children who were noticeably different from their peers, yet not until recent years have educators really focused their attention on the problems of this group.

2 The Exceptional Child in Contemporary Society

Experience and research in the related fields of psychology, sociology, and rehabilitation have stressed the need for and importance of special services to exceptional children in our schools. Today, many recognize that the failure to provide properly for these youths in the schools often results in increased welfare loads, increased institutional populations, and unnecessary loss of man and womanpower.

Every community has its exceptional children. It has been estimated that there are from four to five million such children in the United States. In Table 1, Mackie and Dunn present a conservative estimate of the incidence and number of school-age exceptional children in the United States.

TABLE 1

Exceptional Children of School Age (5 to 17)
in the United States (1952)

Type	Incidence (percent)	Estimated number
Visually handicapped	0.2	68,000
Blind	0.17	10,000
Partially seeing	0.03	58,000
Crippled	1.5	510,000
Special health problems	1.5	510,000
Deaf and hard of hearing	1.5	510,000
Speech handicapped	2.0	680,000
Socially maladjusted	2.0	680,000
Mentally retarded	2.0	680,000
Gifted	2.0	680,000
TOTAL	12.7	4,318,000

Romaine P. Mackie and Lloyd M. Dunn, *College and University Programs for the Preparation of Teachers of Exceptional Children*, U.S. Office of Education Bulletin No. 13 (1954), p. 3. Adapted by Karl C. Garrison, and Dewey J. Force, *The Psychology of Exceptional Children*, 3d ed. (New York: Ronald Press Co., 1959), p. 14.

Research on the extent of the problem suggests that the number varies from community to community. Educators should know the types of exceptional children their schools may have to serve. They should know also the types of services needed and those that are available locally. They should have some broad and general understandings about the problems of exceptional children and the role of the school and related agencies in helping to meet the needs of these children in contemporary education.

The articles in this chapter have been selected to give an overview of the problem of serving exceptional children. T. Ernest Newland introduces the chapter by a discussion of special services for exceptional children and how these services have developed over the years. Leo F. Cain looks at the teacher's responsibilities in serving exceptional children who are handicapped. Frances A. Mullen presents an outline of the preschool area of special education. The selection by Capobianco was included to give the reader an idea of the psychologist's role in evaluating and guiding exceptional children. John W. Tenny's article, "The Minority Status of the Handicapped," approaches the problem from the viewpoint of the social psychology of minority groups. Dr. Leo Kanner, an eminent child psychiatrist, considers the impact of various family climates on the development of the exceptional child. The statements and questions prefacing each article are intended to help the reader organize his thinking around the central issues raised in the selection.

1. Why Special Education *

T. ERNEST NEWLAND

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Modern society has become sensitive to the needs of exceptional children. How did this sensitivity develop, and how is it reflected in the types of services offered these children today? Professor Newland's article presents some provocative material that will help to answer such questions as these.

This country's concern about and interest in children who differ noticeably from the average has changed significantly since the days of our founding fathers. Our society's sensitivity to the particular needs of the exceptional, especially of the handicapped, was understandably

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slow in developing. It still is very much in the process of "becoming."

The conditions extant in our early Colonial days put a premium on survival and maintenance. To an extent now difficult to imagine, each individual was expected to contribute quite directly to the survival of the group, particularly the family group. Clothes were made, and food was raised and processed within the family group. Each member of the family group was expected to do his share of the work. Children were regarded as miniature adults and as such were expected to do their share. A non-contributor was definitely a liability. The handicapped was not only a non-producer, but also one who made demands upon others who already were busy keeping alive, nurtured, and clothed. Quite understandably, he was easily relegated to the "back room," a practice not yet absent from our social scene.

As communication facilities improved, as population concentration increased, and as humanitarian philosophy became increasingly influential, our society took a first step aimed at alleviating the problems both of the handicapped and of those who had the responsibility of looking after such non-producers. "Homes" and "asylums" were created with what should be regarded as good intentions for the handicapped. It is understandable that, under the social demands then operating, all such non-contributors to social well-being, whether they were blind, deaf, crippled, or mentally handicapped, should have been grouped together for housing and care. The "parking lot" concept had arrived. Unfortunately, traces of this kind of thinking still are too much with us even in some of our schools.

As is true of so many of the elements in our social evolution, no single factor or condition suffices to account for change. The rope we call society is a compound of many, many strands, each having its own background and history, each affecting the other. In like manner the present status of exceptional children in our society has been changed materially by a large number of interrelated factors.

The humanitarian movement grew. Communication facilities increased, particularly as regards news and travel. Men (and communities) became more interdependent. The industrial revolution got under way. Compulsory education began to become part of our social picture. Knowledge of medical diagnosis and treatment increased. Educational methodologies, especially for the blind and for the deaf, were developed. Later still, objective psychology appeared on the scene with its attempts

to measure important aspects of human behavior and to throw clearer light upon human potential.

The consideration of the patient as a person, rather than as a case of tuberculosis, suggested a shift in our social thinking. And all through the two or three centuries when these (and other similar) things were occurring, the importance of the individual as a person, the possibility of doing things for him physically, and the fact of his educational potential instead of his simple care demands figured larger and larger in our thinking.

Less and less, blind, deaf, and crippled children were perceived merely as individuals who were only to be cared for and protected from the inevitable and often harsh demands of a world that regarded them as unable to care for themselves, wholly or in part. More and more, many of these handicapped came to be recognized as capable of benefiting from some education or training, as capable of contributing at least in part if not wholly, to their own maintenance. Certain of the mentally handicapped were found to be able to benefit considerably either from some education or from training. Society has dealt variously with its problem of trying to decide which of its members need care and are unable to contribute to their own maintenance and which of its members can profit from an education and contribute not only to their maintenance but also to the maintenance of others. And this problem still is with us.

As a society, we now are voicing continued and extensive concern about the importance and welfare of our exceptional children—both the handicapped and the gifted. More than ever before in our history the problems, needs, and potentialities of these exceptional children are coming before the public in newspaper articles, magazine articles, entire books, the movies, the radio, television programs, and as group discussion topics by both lay and professional groups. Laws in their favor have been enacted by every state; some of these laws have been in effect for over 30 years. The motivation back of such provisions has been an increasing conviction that the exceptional should be enabled to contribute to society more nearly to the limits of their capabilities, plus the humanitarian belief that each individual has a fundamental right to as complete self-realization as is possible within our social structure.

Contributing considerably to our present sensitivity to and activity for the exceptional have been the activities of quite different groups in

our society. These organizations range from some that are purely scientific, some that are purely professional, some a mixture of scientific and professional, some that are made up of the handicapped themselves, to some made up entirely of lay persons, some organized to work in the interests of only specific kinds of persons with handicaps, such as those for crippled, the mentally handicapped, and the emotionally disturbed. The overall social impact which such pressure groups have tends to be constructive, even though the inevitable ebb and flow of their stimulus value and the emotional appeals which some of them make beyond the safety of scientific fact may be disturbing to some whose interests and information may be broader.

The provisions made for our exceptional children have come to be quite varied in nature, and probably will continue to be even more varied. To many persons special education means only the provision of special classes in the public schools. But there are also residential schools for blind and deaf children; these schools play important educational rôles, whether they are under state departments of public instruction or not. Some special teachers work in hospitals for crippled children. Other teachers go to the homes of children who are physically unable to attend school; their work even may be facilitated by home-to-school telephonic connection. Others, often called visiting counselors, work individually with maladjusted children in their schools, homes, and communities. Speech correctionists may work with only one child at a time, although this is not the way they do all their work. Other special educationists render consultant services to school personnel, and still others provide psychological diagnostic services for the teachers of children who should have some tailoring of the school program to their particular needs. Special education provisions, then, include much more than special classes.

To attain these ends through the public schools, many states make some kind of financial provision whereby local school districts are given financial help in providing more adequately for one or more kinds of handicapped children of public school age. Only five or six states, however, included the gifted in their legislative statements pertaining to special education, and only some of these provide any financial inducement to the establishment of special education services for this group. Mostly, these legislative provisions make possible the states' helping local public school districts to defray, in whole or in part, the extra edu-

cational costs that are associated with the provision of such services.

Characteristic of this practice of the local districts receiving financial help from the state for the operation of their special educational programs has been the fact that such state aid to the local school district has been assumed to be a relatively constant thing. If a school district received all the excess costs of running a special class, or for providing a speech correctionist, or teacher of the homebound, it expected such state aid to continue to be forthcoming from the state. As local services increased, more and more financial demands upon the state were (legitimately) made. As additional school districts introduced new special educational services, increased financial demands were made upon the state for the reimbursement authorized in the school laws.

While part of the reason for the states providing extra special educational funds to the local public schools has been to help the local district defray the inevitable extra costs of such a program, the "pump priming" concept also was involved. Schools that were reluctant to provide even the special education services that they regarded as worthwhile could thereby be induced to round out their educational programs if they could do so at no extra (direct) cost to themselves. However, other similar inducement practices in the federal and state scenes have tended to operate in the full sense of "pump priming," in the sense that after the pump was primed, the priming could be tapered off and, later, fully stopped. This concept seems not to have operated, or to be operating, in so far as special education is concerned.

Two alternate possibilities, therefore, present themselves as regards the financing of special education programs: Either the states will need to anticipate not only a significantly increasing and fixed financial obligation to the local public school districts—a kind of expanding *status quo*, or the states will need to consider the establishment of funds admittedly for "pump priming" purposes but with view to these being used in programs of decreasing reimbursement on special education services over a period of time. That is to say, the state could help the local district with *all* the excess costs for the first few years, on any given part of the districts' *new* programs, and then provide for the state's reimbursement of the excess costs of special education to taper off from, say, 100 per cent during the first two or three years to some percentage, say, 10 to 25 per cent (or maybe even zero per cent?), by the end of ten years.

Although few persons have even discussed this possibility, those who oppose the idea claim that the special education services would be dropped as the financial load on the local district increased. Supporters of this graduated reimbursement idea take the position that such a practice would be justified by virtue of the probability that the special education programs would survive only to the extent that they were perceived by the public as being good and fruitful, and, therefore, worth retaining. Believing in the basic soundness and merits of a good special education program, they hold that a program on which the public is not "sold" should not be continued only because it is not costing the local school district anything extra in support of this alternate proposal, it is further argued that such a practice would, over a period of years, provide a reasonably constant promotional fund that would facilitate the making of special education provisions for the 75 to 80 per cent of exceptional children still badly needing them.

The appropriateness, or goodness, of any special education program can not be determined on the basis of any single, mechanical standard. What is appropriate for children with one type of exceptionality may be utterly inappropriate for other kinds of exceptional children. What is appropriate for one type of exceptional child in a large city (or, even, in a part of that city) may be quite inappropriate in a small community, and still less appropriate in a sparsely settled rural area. A good program for one type of exceptional child in one type of social milieu can well become inappropriate in the same locale with changes in transportation, medical and educational technologies, and altered social demands and opportunities. But present in all situations would be the central question: "By what means can we help this exceptional child to become a happier, contributing member in the society in which he is to live?"

Summary

For a large number of reasons—philosophical, scientific, technological, educational, our society has been shifting from a "back room" conception of the handicapped, is moving out of a "parking lot" attitude toward him, and is committing itself to seeing that the child with a handicap is enabled to learn as well as he can, is enabled to contribute at least to his own maintenance as much as is possible, and is helped to become as fully as possible a personally adequate and adjusted person.

Without taking either a mawkish or purely economic point of view, one can perceive major social value in this facet of our social evolution. With certain of our patterns changing, and with the nature of our "frontier" changing, society's sensitivity to the needs of the gifted is being heightened. They, too, are being perceived in terms of greater social contribution and of greater self-realization.

With society's altering views of the exceptional—both the handicapped and the gifted, have come changing educational methods of meeting both their needs in our society and society's needs as regards them. We have enacted state laws in their favor, especially school laws, and to a marked degree the states are making available to local communities more and more funds to facilitate the adapting of local educational programs to their needs. Absolute standards for the evaluation of programs for the exceptional are unreal because of the varying needs of different kinds of exceptional children and because of the varying requirements and potentialities of differing kinds of social milieu. Essential to all of society's provisions for the exceptional will be a supreme concern for the exceptional child as a person who must live in a society.

2. The Teacher and the Handicapped Child *

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Teaching is a challenge because it requires an understanding of children as well as a knowledge of their educational needs and the methods for meeting these needs. Teaching handicapped children is an even greater challenge, for the teacher must not only understand the children but also appreciate how handicapping conditions can affect adjustment and learning. Those who are charged with the responsibility of working with the handicapped will find many useful suggestions in this article.

* Reprinted and edited from *Education*, 69: 275-279, January 1949, with the permission of *Education* and Leo F. Cain.

The American educational system is continually being indicted for the failure of its professional personnel to understand children as children. This problem has been discussed over and over again in the literature concerned with mental health in school and provides occasion for much of the discussion that occurs at meetings and conferences of educators. A statement by the Division on Child Development of the Commission on Teacher Education¹ presents some of the major deterrents to learning and adjustment which occur between teachers and children. This report sounds the warning that the following happen often enough in the schools of our country to warrant careful study and positive action. It indicates that (1) children are often required to learn things and are expected to behave in ways inappropriate to their level of development; (2) full acceptance of and respect for each child as a person is not always maintained by the teachers, and relationships among children that imply acceptance of each other are not always fostered; (3) reward and punishment are usually meted out to children in terms of the significance of school policies or teachers' purposes, and the behavior of children is often controlled by means of humiliation; (4) the development of necessary skills and factual learning is often made difficult and the adjustment problems with which children are struggling frequently go unrecognized; (5) children who are successful in conforming to the learning and behavioral demands of the school are not studied carefully; and (6) children with physical handicaps or severe personality maladjustments are not always referred to clinics or physicians and those referred are not always followed up in terms of treatment.

Such a report implies, if these indictments be true in terms of children in general, that the problems are increased for the handicapped child. Because of his disability he will often lack normal outlets for his energies and acquire greater dependence on others in terms of making decisions. Such can result in the use of the handicap as a crutch for adjustment, and the development of highly undesirable personality patterns. Handicapped children, as are normal children, are vitally concerned with their ego status, and one of the important duties of the school is to give effective guidance through a well implemented program of educational therapy.

In developing such a program, certain basic questions arise which

¹ Staff of the Division of Child Development and Teacher Personnel, *Helping Teachers Understand Children* (American Council on Education, 1945).

deserve the critical attention of school people if a functional program with a sound psychological basis is to be put into practice. In a brief discussion such as this, all the facets of the problem cannot be explored and others than those presented will undoubtedly occur to the reader. The point of view of Axline and Rogers² is indicative of the problem which confronts the teacher who works with the handicapped child. They state that the best results are achieved when the person dealing with the handicapped child shows an attitude of warmth, acceptance of all attitudes, of permissiveness and of reliance upon the capacity of the individual to work out an adjustment once he becomes consciously aware of his own attitudes and can accept them. If we can assume that such an awareness is essential on the part of the teacher, and if he intellectually accepts a philosophy which is in agreement with such a point of view, he still has the problem of translating this philosophy into an operational program in terms of his own school situation. In making this transition, he is faced by numerous practical problems. Perhaps the more important of these concerns himself. Can he, even though he accepts a point of view intellectually, actually carry his philosophy over into practice? Will his own behavior patterns permit this practice which he intellectually accepts? The report of the Commission on Teacher Education cited above indicates that there is too much rigidity, too great an adherence to arbitrary standards and a practice of demanding conformity which makes it extremely difficult for teachers to actually change from established practice. New approaches which demand a new set of techniques often create such a sense of insecurity that the best of intentions, even though accompanied by real intellectual understanding, get no further than the paper and pencil stage.

Another problem is concerned with the school setting in which the teacher finds himself. If the teacher is willing to make the attempt to translate his program from the paper and pencil stage to the operational stage, will he have opportunity to do so? Such opportunity will be greatly increased if there is understanding on the part of his colleagues of what he is attempting to do. In this instance, his colleagues include many—his fellow teachers, his administrators and supervisors, his board of education and the parents and members of the community in which he lives.

² Virginia W. Axline and Carl R. Rogers, "A Teacher Therapist Deals with a Handicapped Child," *Journal of Abnormal and Social Psychology*, 40: 119-142, April 1945.

The educational lag in providing for the handicapped as revealed through such practices as exclusion from school, segregation in institutions and the complete absence of any educational facilities for handicapped children in many parts of the country, particularly in rural areas, is indicative of this lack of understanding.

Thus, the teacher of the handicapped child has a responsibility which makes many demands. If he puts into practice the things that will provide the most favorable opportunities for the development of his charges, he will realize in the course of his work that he must know much about his students and their abilities and disabilities. Only as his understanding increases can he help to decrease the lack of understanding on the part of others. He must be concerned with what he can do to improve the interpersonal relationships between himself and the children under his direction. If he is to make the school period an integral part of a total therapeutic program, he must seriously consider the role he must play. The following represent a few of the more important guideposts for the special teacher:

1. The teacher should act both as a teacher, counselor, and a therapist. To do this he must be sympathetic but not sentimental. He must appreciate the difficulties under which the handicapped individual lives, but such appreciation must be based on a sound understanding of the disabilities involved and not simply on an emotional desire to do good and help the unfortunate. Likewise, he must be permissive enough in interpersonal relations to grant a sufficient amount of free expression to give the handicapped child security. A teacher who tends to be authoritarian and who judges children in terms of how well they conform to his set policies and standards will place the program in jeopardy. Too often the time spent in the classroom is considered something totally apart from any program designed for therapeutic purposes and as a result may actually hinder the individual development of the person for whom help is sought. The teacher or administrator who wishes to exclude the handicapped child because he does not fit into a set program and takes such a child under protest negates much of the positive help the others may be able to give.

2. The teacher should understand how the child makes use of his handicap. Children can learn at an early age to "live off" the handicaps they may possess. This may result in high egocentricity, domination of other persons and unwholesome control of situations by using the handi-

cap as a big stick. Such attitudes only tend to set the child further apart from his peer group and unless some positive help is given him, he will probably experience major emotional and social adjustment difficulties as he matures.

3. The teacher should provide for integrative experiences with the child's peer groups. To educate a handicapped child in isolation is to endanger the possibility of healthy adjustment. There must be a basic understanding of how children accept, tolerate or reject their peers and of the values they place upon various behaviors. If the likenesses of the handicapped child to his peers rather than his differences from them are to be emphasized, he must gain acceptance. This acceptance can be fostered through an understanding of group dynamics and by providing sufficient opportunities for group experiences. If this is to be done, the handicapped child must be permitted to participate in the general activities of the school insofar as possible. To isolate a class of handicapped youngsters in a single room and to permit no participation with the larger group is to counteract the values of the special class and the special services it may have to offer.

4. The teacher must avoid an atmosphere which fosters too much dependence. This does not mean that constructive help should not be given to the handicapped child. Such may be essential in helping him gain security, but the best adjustment will result when he is capable of making independent decisions which will result in positive adjustment in terms of his limitations. To achieve this he must be exposed to situations in which he can experience success. This again does not mean that the environment must be so controlled that he has no chance of failure, but his training should be so arranged as to give him sufficient insight and a sound basis for avoiding those experiences which are most likely to end in failure and frustration and for choosing those in which there is a possibility for achieving success.

5. The teacher must be constantly aware that he is dealing with children and that his use of subject matter, teaching methods, and special equipment and services are only for the purpose of developing the children under his charge. This is brought more sharply into focus with the handicapped child because it becomes even more essential with him that any education and training program start where he is, as such a child will be less able to compensate than will the child without a handicap. To deal adequately with the problem of the handicapped, the

teacher must know the development of the normal child in order to understand the nature and extent of the deviations and make proper provision for them.

Many specific suggestions may also be given to all teachers concerning the handicapped children they may have in their classes. To state them all would take several pages. Listed below are some of the important factors which teachers should consider if there is to be a meaningful educational program for these children. It is important that all teachers:

1. Develop an awareness for symptoms that are indicative of handicaps. Remember that handicaps are often multiple and that symptoms seemingly indicative of one condition may actually be caused by a related disability. For example, a child who appears to be mentally retarded may have a hearing loss.

2. Be aware that a physical or mental handicap is often accompanied by a social handicap. Such children may experience rejection or overprotection at home and such should be avoided at school.

3. Maximize the likeness of the handicapped child to those of his peer group by emphasizing his assets. Develop a positive philosophy by showing that all individuals have some handicaps to which they must adjust.

4. Provide sufficient freedom for the handicapped child to work out problems in terms of his own limitations.

5. Encourage the handicapped child toward possible vocational goals within the limits of his abilities.

6. Work for adequate diagnostic and treatment facilities within the community and state. Remember that such facilities will not be provided unless they have community support.

7. Work for an educational program within the school system that follows through with the handicapped child. A good program in the elementary school can be largely negated by making no provision for special programs at the secondary level.

8. Evaluate the accomplishments of the handicapped child in terms of what is useful to him and not in terms of arbitrary standards which may be unattainable.

Any discussion concerned with the mental health of the handicapped child cannot be basically different from one which concerns the mental health of all children. While it is true that children with specific disabili-

ties present many special problems, many of these can be minimized, if the first concern of all teachers is the mental health of their students. Any school faculty who considers this the first order of business and makes such basic to its plans in curriculum building is well on the way toward making provision for the handicapped children among its student population.

3. The Preschool Area of Special Education *

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The preschool years are often considered the formative years and what occurs in the life of a child during this stage of development is therefore extremely important. To parents of "normal" or "average" children, this is a difficult period during which many seek professional help. What is the role of parents of exceptional children? Is it different from that of other parents? Must they work out problems for themselves, or are special services available? This article suggests ways in which exceptional children and their parents can be helped during the child's preschool years.

In six short years the non-handicapped crib-bound infant becomes the toddling home explorer, then the chattering neighborhood rover, and finally the confident school boy, master of the manly arts of self help that involve so many buttons and zippers. He achieves an astonishing vocabulary and uses language freely and expressively. He learns to work and play with others.

What happens to exceptional children during these same learning-

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packed years? To the blind child one avenue of learning is closed; to the deaf, another; to the crippled, a third. And the closed avenues are sometimes more numerous than need be.

For the blind child, some hindrances to learning, chiefly surmountable but very real, are inherent in his blindness. In addition he may unnecessarily be deprived of other opportunities for learning. He is not attracted to explore a distant object by its exciting color or movement. He cannot see the child who, tentatively eyeing him, holds out a treasured toy, then withdraws it when the blind child makes no response. His speech may be retarded if there is not someone to talk generously with him and to see that he makes the joyous discoveries which will cause him to want to ask questions and to communicate.

The deaf child misses those avenues to learning opened to other children by sound. Without most skilled help he cannot learn to talk. He misses many other aids to interpreting the world: the sound of water boiling on the stove, the warning hiss of the steam radiator, the song of birds, the approaching auto. He misses explanations of the whys of the behavior of the people around him, the meaning of events.

The lack of sound in his environment is a severe handicap. Even more retarding may be other losses. Overprotection may retard his development in self-confidence and self-care, even in physical growth and health. His unsatisfactory contacts with children and adults may permanently restrict his ability to relate to others. He may miss entirely the friendship and play of other youngsters. He may lack the normally stimulating situations which would make him want to communicate and to try to understand.

The crippled child too lives in a restricted world. His opportunities to learn by exploring, by running to feel and touch and taste, are impaired if not eliminated. He cannot join the active games of other children; he misses much of the give and take that teaches the rights of those around him.

But again the secondary handicaps may be greater than the basic handicap. Many who could with some difficulty learn to feed themselves are spoon fed, literally and figuratively, for many unnecessary years. Fearfulness, lack of curiosity, dependence on others, a feeling of self-pity may result from devoted but unwise care. Speech may be slow in developing if the natural opportunities and needs for communication

are not present. A reliance on temper tantrums can become very deeply ingrained before these first important six years have passed.

The mentally retarded child may become all too aware that he is not living up to the expectations of his parents; that other children of his size don't want to play with him. As a result he may withdraw from attempts to relate, with further disastrous results to his speech development, his self-confidence, his personality adjustment.

The exceptionally gifted child too has special needs which all too often may be frustrated in these early years. His eager search for answers is brushed off too frequently with childish platitudes. He may be expected to be satisfied with picture books and games that already have no appeal. He may find it difficult to play with the children of his age, and be unaccepted by the older ones.

For all these and other exceptional children, special procedures, special care, special services are desperately needed during these all important pre-school years. Special educators have long been aware of this. Schools which have not extended their services to nursery age children in the normal range of capacities have offered nursery classes for blind, deaf, and crippled youngsters. Almost without exception, such programs carry definite plans for providing guidance and help to parents.

Public schools which maintain classes for the blind have extended their services to the three- and four-year-old blind children of the community, because of the realization of the need for more experiences than the family can well provide for these youngsters. Chicago has long had such classes. Parents are encouraged to enroll pupils at three years of age, if they are ready. Nursery groups for the blind range from 6 to 8 pupils in enrollment. A teacher with training and experience with non-handicapped kindergarten children and special training in the psychological, social, and educational needs of the blind is in charge of each group. Language development is one major objective. Through a variety of opportunities for individual and group play, through the natural dramatizations of playing house and store, in the well-equipped play corners of the room, through rhythms, music, and stories, stimulation to communication is provided. The five-year-olds from the non-handicapped kindergarten group have regular periods in the blind nursery and regular periods when they bring their sightless playmates to join

in the activities of their home room. From the special nursery, the blind child advances to a special kindergarten. Here he plays with blocks and other materials that give him familiarity with the Braille alphabet. He is encouraged in sensitive use of his fingertips for much learning. He spends still more time with the sighted kindergartners than he did when he was in the nursery class. There is much emphasis on speech and social development.

Another pattern provides enrollment for the blind child in nursery groups for the sighted. Massachusetts reported twelve children in such a program in 1950. In California, state-wide programs have placed many blind children in child-care center programs, in cooperative nursery schools, in teacher training centers, in public park "rhythm groups."

Similarly, school systems with well developed programs for the deaf feel that nursery classes are most essential parts of a total program. In New York City, both residential and day public school provisions for the pre-school deaf are available. Both institutions emphasize the importance of beginning training early. The Lexington School for the Deaf, the residential unit founded in 1867, gives much importance to the enrollment of the three-year-old deaf child. Junior High School 47 in Manhattan provides for deaf children from two years, eight months of age until they are ready for senior high school. Serving all five boroughs of New York City, it is a "segregated" school, housing only deaf children. Of the PS 47 program we read:

Natural daily nursery experiences provide the stimulus for the beginning of speech. There is no pressure exerted at any time for perfection of speech nor is there a tutorial type of program set up for this area of learning. Constant use of the individual hearing aid, together with a good nursery program in which the teacher purposefully meets the needs of the handicap of deafness brings about quite naturally the beginnings of spontaneous speech in the deaf child . . . Real speech is motivated by desire for expression . . . Another vital aid to hearing and speech growth is the acoustic training program, begun very early in the child's school career.

This school has lately experimented with bringing hearing children, for whom in general no public nursery program is available, into the

program so that the deaf youngsters may have natural play experiences with the hearing even at the nursery level.

Chicago provides nursery and kindergarten classes in all four of the special schools for physically handicapped children. Children are accepted at the age of three, on recommendation of their physician, and after psychological examination. Each child receives therapy prescribed by his physician from physical therapists provided by the school. Some youngsters come to the group scarcely able to hold up their heads, with next to no speech, with no interest in the other children. More often than not the change effected in a few months seems to the parents to be little short of a miracle. Some move from wheel chair to walker to crutches; all make progress in self-help of many kinds. The youngsters begin to take an interest in the children and adults around them; their first real need and desire to talk may be awakened. Many of these youngsters have never before had an opportunity to play with other children. Very probably they would continue to have very little such opportunity until they were admitted to school. The program is based on two premises: first, that in the school situation physical therapy and stimulation to physical activities in play, eating, dressing, and self-help can bring much progress in physical well-being during these crucial developmental years, and secondly and equally important that in the school situation, a social and psychological environment stimulating to growth in speech, in personality, in adjustment can be provided that would be most difficult to duplicate in the home.

Few group programs for nursery-age mentally handicapped children have been reported. The tendency has been to delay school entrance for these youngsters, not to accelerate it, because of their unreadiness for academic work, and their lack of capacity for social adjustment to a schoolroom group at an early age. Kirk, however, has reported exceptional results with a group of pre-school mentally handicapped children, in a special setting under university direction, with extensive special services, and a research orientation.

Few discussions of the gifted child mention any special group programs for the pre-school youngster, though published advice to the parents of the superior is prolific. In Brookline, Massachusetts, gifted children have long been admitted to kindergarten at an early age, on the basis of individual psychological evaluations of their readiness. This program has now been in existence long enough so that some of these

accelerated pupils have finished high school and entered college. Apparently they have suffered no social or other handicap from their advancement. They have been successful in their school adjustment, and have done well in college, in competition with their older classmates.

Almost all of the school programs for nursery-age exceptional children encourage teachers, supervisors, psychologists, and other persons working in these programs to feel much responsibility toward the parents. Some schools refuse to accept children whose parents cannot attend regular counseling sessions or make regular visits to the school for observation of methods, and for discussions and guidance. All make provisions for assistance to parents through personal consultation; most have some form of regular group meetings.

Other agencies concerned with the exceptional child make counseling available to parents whether or not the child is receiving direct service. The state schools for the blind and for the deaf at Jacksonville, Illinois, and the Illinois Hospital School in Chicago, annually offer two week institutes for parents of the young handicapped child. Parents bring their child and live in the institution during these sessions. If the father cannot stay full time, he is encouraged to be present weekends. Lectures, demonstrations, work shops, counseling sessions, and films help these parents understand the needs of their child and give them practical help in meeting the day-to-day situations of home life with the handicapped child. A summer session for parents and pre-school deaf children is sponsored by the Vassar Summer Institute For Family and Community Living.

Parents of blind, deaf, mentally handicapped and other groups have formed a large number of local organizations. Through professional speakers from all the disciplines related to their problem, the parents gain much information. With each other they exchange suggestions and ideas. Each finds his own frustrations easier to bear as he sees the commonality of his problem and as he works constructively on projects to benefit all children.

The John Tracy Clinic in Los Angeles, starting with a mother's search for help for herself and her child, has grown to a large professionally staffed organization providing many services to young deaf children and their parents, including a correspondence course which has reached many parents to whom no other source of constructive help was available.

8121

Professionally directed groups concerned with specific handicaps have devised a wide variety of programs for bringing to parents the help that will enable them to guide a handicapped child wisely.

In the field of medicine, some physicians have felt at a loss in family counseling, once they have diagnosed the exceptionality. The settings in which the medical specialist has available a team of social workers and psychologists with specialized training and experience with a particular type of child have provided the most effective service.

In pre-school as well as in other phases of special education, we hear much today of "integration," and of the dangers of separating exceptional children from their non-exceptional age-mates. The argument is nonsensical if it assumes that all "integration" is good per se, and all "segregation" equally bad. The educator uses segregated classes or schools when and where they are needed to complement the needs of particular stages of their development.

The blind child needs to learn to get along in a sighted world with sighted comrades; he also needs skilled specialized professional help in developing some of the special readiness for learning which he must have. Many of his needs at the nursery and kindergarten ages are identical with those of his sighted peers and are learned best with them; others are unique to him. We have noted a number of different experiments in providing for these twin needs.

With the young deaf child, a much discussed point in recent years has been the age at which it was desirable to use artificial hearing aids. Formerly, aids were not generally prescribed until the child was of school age. The great improvement in aids, the simplification and lightening of the instruments, and the growing recognition of the importance of having the child use every bit of sound that can be brought to him, even though it may not be enough to give him very good clues to speech, brought a revolution in the thinking of physicians, audiologists, and educators in this respect. More and more aids are being placed on babies in their cribs. Toddlers are being helped to accept and utilize the frequently annoying appendage. Sessions of planned acoustic stimulation have been developed for very young children. With the best of aids, many youngsters will not hear the whole range of speech sounds and will not get enough to make the speech of those around them decipherable. Skilled assistance that gently helps the toddler pay attention to the lips and speech movements of those around him, that helps him



to learn "speech reading" as a supplement to the distorted or partial sounds he gets through his hearing aid is most essential. This help is most effective in a stimulating social situation where the child has many needs and desires to communicate with those around him—i.e., in a nursery school group.

Conclusion

The pre-school years are vitally important for all children; truly so for exceptional children. Parents of so-called normal children have a difficult time finding the middle road between overprotection and neglect; between love and rejection; between too much freedom and too little. Parents of exceptional children have all the personal, social, economic, and other problems which make life difficult for other parents, and the added burden of adjusting their own feelings and emotions to the fact of their child's handicap. There are specific dangers into which it is particularly easy to fall in dealing with the child who is different. These parents and these children must have specialized help. Special educators are much aware of this; many programs to bring help to parent and child do exist. But much more needs to be done. Even at school age, only a small proportion of the children needing special education are receiving it; at the pre-school age the gap is still greater.

The groups for whom the most has been done are the blind, the deaf, and the crippled. Special education is only beginning to think about the pre-school mentally retarded child, the pre-school gifted, the pre-school emotionally disturbed child.

At all ages, service to exceptional children demands close teamwork between education, medicine, and social work. For the pre-school age group much of the responsibility for assistance to child and parent must remain with the latter two professions, and must be accepted through definitely planned programs of service.

Special education has, however, a background of experience in meeting the needs of exceptional children and their parents, an insight into the learning phenomena involved, a vital stake in the results of pre-school programs. In some measure it has at hand machinery for meeting pre-school needs not available to the other professions. Special educators have a responsibility to take leadership, in cooperation with the other disciplines, in developing the programs which will give every

exceptional child the opportunities he needs at the time when he needs them most.

School census procedures, and other devices for locating the pre-school exceptional children, vary greatly from community to community. Nationally it is safe to say that we have very incomplete data on the numbers and needs of our exceptional pre-school youngsters. Special educators quite universally attempt to collect data on youngsters in their own community before they become of age for the school program, whatever that age may be. Their efforts need to be expanded by specific state laws providing machinery for registering and serving exceptional children.

4. Psychological Services in Special Education *

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Proper school placement and an adequate school program for exceptional children can be provided only when sound evaluative and psychological services are available. What is the function of the psychologist in the schools, and how does he serve exceptional children? R. J. Capobianco discusses here the need for careful, skilled psychological diagnosis of exceptional children by competently trained school psychologists in contemporary special-education programs.

The influence of the schools in the adjustment process has long been considered second only to the influence exerted in the home. School authorities have long since accepted this responsibility through the establishment of psychological and educational clinics, the employment of guidance counselors, and the utilization of cooperative ties with other service agencies. Nowhere is there a more pressing need for psy-

* Reprinted and edited from *Education*, 77: 480-482, April 1957, with the permission of *Education* and R. J. Capobianco.

chological and educational services including diagnosis, prognosis, treatment, and follow-up than in the area of Special Education.

The report of the Thayer conference on the functions, qualifications, and training of school psychologists lists: "Identifying exceptional children and collaborating in the planning of appropriate educational and social placements and programs" as the second major function served by school psychologists to school personnel. The importance of this particular function is substantiated by a review of the literature which cites the special and remedial education function of school psychologists as second in a list of most numerous references in psychological and educational journals. There are numerous clinics within and outside of public school systems which deal specifically with various phases of special education. In addition to the psychological and educational clinics there are many other services under various titles dealing with problems of exceptional children. Among these services are included: child guidance clinics, reading clinics, cleft palate clinics, speech and hearing clinics, eye clinics, orthopedic clinics, cerebral palsy clinics, and psychiatric clinics.¹ Oftentimes there is an integration of a few of these clinics using an interdisciplinary approach to the problems presented by exceptional children.

In spite of the seemingly multifaceted approaches to the problems confronting the special educator, the goal for these services is common to all. That is, adequate placement and training for the various types of exceptional children in order to obtain optimum adjustment for the children involved.

The diagnostic techniques for the evaluation of exceptional children differ not only for the various exceptionalities but also among clinics and among the various professional teams comprising the personnel in these clinics. Basically, however, there is a common framework for the diagnosis of all children who enter a clinic setting. This basic framework² includes referral from a responsible source, the administration of an intelligence test and an achievement test, the administration of a brief screening device for measurements of visual and auditory abilities followed by individual diagnostic tests specific to the area in question

¹ Jack W. Birch, "Patterns of Clinical Services for Exceptional Children," *Exceptional Children*, 19: 214-222, March 1953.

² R. J. Capobianco, "The Diagnosis of Reading Retardation," in *Attitudes of Educators toward Exceptional Children*, Syracuse University Monographs (to be published).

(reading diagnostic tests for those who are handicapped in reading, arithmetic diagnostic tests for those who are handicapped in arithmetic, etc.)

The next step in this basic procedure is the administration of personality tests for the determination of non-physical and non-intellectual factors that may be related to the problem in question. Often added to this battery of tests is a series of physical measurements for the determination of eyedness, handedness, laterality, etc. Equipped with the analysis of the results of these tests, the psychologist is then ready to suggest a specific therapeutic treatment, prescribe a particular educational remedial technique, refer the child to some other agency or suspend judgment until further diagnostic studies are completed.

Within this basic framework, the psychologist utilizes those specific clinical tools best equipped to handle the evaluation of different kinds of exceptional children. For example, the choice of an individually administered intelligence test will vary according to the etiology of the child's condition (if it is known) or according to the information already obtained on the child from some other agency. If the child is deaf, obviously a verbal intelligence test is to be avoided. On the other hand, if the client is physically handicapped, particularly with an involvement of the upper limbs, a performance test is to be avoided.

The number of clinical instruments geared to the evaluation of specific handicapping conditions varies in number, kind, and degree of adequacy. The trained clinician is well aware of the varying degrees of validity in these tests, as well as the strengths and weaknesses inherent within them. On the strength of his previous experience and familiarity with the assumptions underlying such instruments, the examiner chooses intelligence and achievement tests which reach low enough to give the child an opportunity to "register" and which reach high enough to give the child the opportunity to demonstrate "what he has." This eliminates the danger of overestimating the functioning abilities of the mentally retarded or underestimating the capacities of the gifted individual.

The practiced clinician is also aware of other positive points which may be unique to certain instruments. Some, for instance, are particularly appropriate for the measurement of intelligence in children with extremely low verbal capacity. These tests often are administered in pantomime in order to obtain a more realistic measurement of the functioning ability of the child without undue pressure resulting from the

verbal handicapping condition. Some instruments have eliminated from them the "timed" problem in various performance items which would make for a better evaluation of the physically handicapped child who knows what he must do but is extremely handicapped in his muscular coordination.

The strength and weakness of any clinic setting cannot be described in terms of test instruments alone. The professional personnel administering these instruments and evaluating the behavior reflected through them is perhaps a more important factor to be considered. Not infrequently school systems are graced with the professional services of an individual who calls himself a psychologist, perhaps because he has completed 3 to 6 hours in the field of psychology at the undergraduate level or perhaps because he has had experience only in the administration of the Stanford-Binet test of intelligence.

The diagnosis of exceptional children, and for that matter any child, cannot be complete with the administration of a Stanford-Binet and an achievement test to determine the difference between capacity and functioning level. More important than the difference between capacity and functioning level is the reason or reasons for the discrepancy. Once these are determined through a complete diagnostic examination including physical, social, psychological and educational evaluations, the diagnostician is capable of exploring with the teacher or of prescribing the most satisfactory procedure for remediation.

The job of the educator or psychologist who behaves in the capacity of diagnostician, then, is to do all he can to understand the child as fully as possible. For the parent and teacher concerned with the problems of diagnosis, prognosis and placement of exceptional children, it is their task to guarantee the employment of qualified clinical personnel in the school systems and to cooperate as fully as possible with the clinician in the pursuit of the most feasible remedial technique for the alleviation of the problems presented.

5. The Minority Status of the Handicapped *

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Many writings have been devoted to the problems of minority groups, yet none appears to be concerned with the plight of the handicapped. How do the handicapped fare in modern society? Are their problems similar to those of other minority groups? What action can be taken to help reduce the minority status of the handicapped? These are some of the questions discussed in Professor Tenny's article.

The attitude of the non-handicapped toward the handicapped in society, in the writer's opinion, places the latter in a minority status not greatly different from the status of more commonly identified minority groups. Although great efforts have been made to improve the social position as well as the physical and psychological conditions of the handicapped, it would appear that further gains might be achieved through the application of sound sociological procedures.

Society's attitude toward the handicapped was expressed, many years ago, in terms of limitations by John J. Lee as: "the limitations imposed by the handicap itself, the limitations imposed upon the handicapped person by society, and the self-imposed limitations (of withdrawal or aggression) resulting from the handicap and society's attitude toward it." Meyerson has also discussed these concepts recently.

Our concern here is with the limitations imposed by society upon handicapped individuals and groups. When we use the term "society" we are thinking of the segments of the total social group which might be

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designated as a majority. The term majority as used here does not necessarily imply a group larger in numbers, but rather one which, in relation to a minority group, has greater prestige and power of decision and determination of human rights and opportunities. Prejudice, the majority attitude toward the minority, may range from indifference to hostility, and the discriminatory acts may also cover as wide a range. It is our contention that the limitations imposed by society result in a minority status for the handicapped much like that of racial, nationality, and creedal minority groups. So it becomes cause for concern that, although society appears to be embarked on a vigorous campaign to reduce minority-majority tensions and conflicts experienced by the last-named minority groups, the minority status of the handicapped is largely ignored.

The programs of the Anti-Defamation League of B'nai B'rith, the National Urban League, the American Federation of International Institutes, and other similar organizations are somewhat familiar to us all. Less familiar are the programs of schools and colleges to prepare teachers, youths, and even our young children to face the problem of majority-minority relationships.

Lloyd Allen Cook directed an extensive college study on intergroup relations, but nowhere in the reports of this study nor in the writings of Dr. Cook, can be found a recognition of the handicapped as one of the minority groups. Likewise, in the various citizenship studies in public schools little or no reference is made to the handicapped. Yet our opinion that the handicapped have a definite minority status is supported by Roger G. Barker, who stated:

The minority status of the physically disabled which is due to the negative attitudes of the physically normal majority . . . would seem to be in almost all respects similar to the problem of racial and religious underprivileged minorities, although it may well be that the source of negative attitude toward the physically disabled is even deeper and less rational. We cannot go into the problems of education, clinical psychology, propaganda, learning and politics which are involved here. When and as these problems are solved with respect to these other minorities, the solution may be applied to the physically handicapped.

Must we wait for the solution of the social problems of other minority groups before we scientifically attack the problem of society's

attitude toward the handicapped? It is unthinkable that we should agree.

What are the differences and similarities between the minority status of the handicapped and that of other minority groups who differ by virtue of race, creed, or nationality?

1. A handicap, like other differences, tends to produce social distance. A handicapped person being treated as an outsider accepts his minority status and plays the role; he fights back or he retreats and withdraws within himself.

2. The handicapped, like other minorities, are often unfavorably portrayed in literature, in drama, and in slapstick humor.

3. The handicapped group, like the Negro and other racial groups, is frequently faced with segregation, particularly in schools. While special school or class placement does not necessarily require segregation, too often inertia or lack of understanding on the part of school officials actually results in segregation. The fact that rejection of the handicapped also may occur in regular classes is supported by Johnson's study of the mentally handicapped in regular classes.

4. Like the other minorities they suffer vocational disadvantage over and above that involved in the nature of the handicap. "Employ the Handicapped" weeks and efforts of vocational rehabilitation and state employment agencies to improve the situation have met with considerable success, but the intensity of effort is evidence of the gains still to be achieved.

5. Unlike those in other minority groups, the minority status of a handicapped child is different from his status as an adult. As a child he is apt to have been overly protected (although some handicapped children are overtly rejected). As an adult he is faced with the harsh reality of competition complicated by discrimination. The following question is often directed to service club members when they are in the midst of a project for underprivileged children, "What about the crippled child you took to the circus or entertained at a Christmas party 10 or 15 years ago. Have you given him a job or helped him find employment?" A common attitude is illustrated by a service club member, always among the first to volunteer for service to handicapped children, who yet shunned a fellow member who was slightly disfigured because of a missing external ear.

6. Family and neighbors do not share the minority status of handi-

capped children. The handicapped lack the support which comes from home and neighborhood proximity to others also handicapped. There are few communities of the handicapped. Children who are handicapped do not have from their home and neighborhood a tailor-made reaction to prejudice and discrimination but must face the majority attitude alone. The attitude varies. It may consist in discrimination from a parent or sibling, but it may also be equally objectionable sheltering and other restrictions. We recall the deaf boy whose brothers and sisters would not take time to communicate with him, and also the girl with epilepsy who at 16 was not permitted to go alone to the corner drugstore for a soda.

7. The handicapped are not alike in their minority status. There are some eight or 10 major classifications of the handicapped with varying degrees of disability in each. Some handicaps are always visible and otherwise obvious, sometimes unpleasant or even revolting to the observer. Some handicaps become noticeable only on occasions—when the deaf or speech defective needs to communicate, when the epileptic has a seizure, when the partially sighted or partially hearing are faced with a situation beyond their sensory powers. Other handicaps are seldom apparent—the glandular case, the brain injured without motor involvement, the emotionally disturbed, and the cardiac, who must explain his inability to engage in vigorous activity.

8. Unlike other minorities, the handicapped do not create social-crisis threats. There is no threat of their moving enmasse into so-called restricted residential areas. They do not threaten to take over certain desirable trades or business activities.

These are some of the special features of the minority status of the handicapped. How, with due regard to these features, may their status be improved?

Efforts to equalize educational opportunities for the handicapped as compared with the non-handicapped have been made through the years of our American history. Yet we are faced with the fact that not over 25 percent of these children are receiving educational opportunity in accord with their needs. To meet the needs of the others we must:

1. Appropriate additional funds for special services and facilities needed for proper education.

2. Develop, through research, improved educational practices and methods.

3. Provide an adequate number of specially prepared teachers.
4. Increase the knowledge and understanding of all teachers in regard to exceptional children so that they may more adequately serve those whom circumstances place in their classes.
5. Devise more effective means of providing services to handicapped children in sparsely populated areas.

National agencies, foundations, service clubs, and countless local groups have raised millions of dollars through the years to aid handicapped children. The appeal of these groups has been based largely on sentiment. Aid has usually been in the form of direct services with occasional support of research projects. These programs have magnificent accomplishments to their credit and have kept the handicapped much in the public mind. To the extent that handicaps have been corrected, individuals have been removed from their minority status, but those still left with handicaps perhaps have been more firmly placed in a minority situation.

Vocational rehabilitation and employment services through physical correction, training or retraining, and job finding have reduced the minority status of thousands of handicapped persons each year. However, the employment disadvantage will not be eliminated for this group until employers give primary consideration to vocational competence rather than to handicaps. Unrealistic physical requirements needlessly close the doors of employment to many of the handicapped.

In times of acute labor shortage, usually associated with war emergencies, employers turn more readily to the handicapped and find in most instances that they are skilled, industrious, and dependable. Vocational rehabilitation has demonstrated that the relatively small expenditure needed to help the handicapped prepare for and find employment is returned to society many times in increased earnings of this group and savings in costly social care programs. As labor becomes more plentiful, some employers discontinue employing the handicapped; some of the gain is lost, but not all. These step-by-step gains lead us to believe that eventually the employment disadvantage will be largely eliminated. However, there must be no letup in these efforts to minimize this minority disadvantage.

If a consideration of minority-majority relationship is to be included in educational sociology, the handicapped should be included as one of the minority groups. Accepting Lloyd Allen Cook's term "the

intergroup movement" for this phase of educational sociology, we find that it is not sentiment-based, but is rather a program of cautious social engineering to reduce prejudice and discrimination. We would suggest that all educational sociologists include the handicapped as one of the minority groups in their teaching, that they concern themselves with techniques for studying the social isolation of this group and procedures leading to their more complete social integration.

The intergroup program would seek to give teachers knowledge and experience so that through carefully considered action programs they might increase their own understanding and bring about desired social changes in school and community. All teachers then should have knowledge of the handicapped minority as well as other minorities. They should know the special service programs for handicapped individuals in each school and community and should endeavor to bring about social contacts between this minority group and the majority group more generally found in their classrooms.

The intergroup movement would help children and adults to understand society with its various minority-majority situations and with its prejudices and discriminatory acts. It would aid representatives of minority and majority groups in school to work together, to resolve conflicts; in short, it would create an environment in which the worth and right of individuals are recognized and educational opportunities equalized. The segregated nature of our special education programs have prevented the non-handicapped majority from intimate social contact with the handicapped in school and probably also discourages out-of-school contacts. Understanding and acceptance come about most readily through individual acquaintance; therefore segregation should be eliminated wherever possible.

The intergroup movement would help minority groups to evaluate and improve their own roles to appreciate their right to be different. In special education we have been concerned with helping the handicapped individual to meet the psychological impact resulting from his minority status. In some instances, efforts have been made to help groups of the handicapped to interpret their roles in society, but on the whole we have been less aggressive than we might well have been. Teachers have not yet developed sufficient know-how in interpreting handicapped children to others in the schools and community, nor have we sufficiently helped our handicapped in group self-evaluation and in making social contacts.

6. The Place of the Exceptional Child in The Family Structure *

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What are some of the interpersonal problems that can be found in the family of the exceptional child? What are some of the reactions of parents to the birth of an exceptional child? How do they face this problem?

In the not too distant past, the main emphasis in the care of exceptional children was centered around matters of physical health and methods of education. Aside from this, people acted as if there were a sort of amorphous homogeneity with regard to personal and interpersonal concerns. There were studies of genetics, neurologic findings, intelligence quotients, learning capacity, and other items that could be measured, tabulated, and presented in statistical form. There is no gainsaying that these are all highly important factors worthy of serious consideration. But the preoccupation with diagnostic terminology, classification, commitment procedures, and pedagogy was regarded as all-inclusive, with little or no regard for feelings, attitudes, emotional responses, and relationships.

Even as late as in the twenties of this century, there were mental hygiene clinics which disdainfully refused to accept retarded children. This was based on the rather supercilious notion that "feeble-mindedness" was utterly uninteresting and offered little opportunity for worthwhile child guidance. There was a general feeling which, had it been verbalized honestly, might have been expressed with these words: "We have constituted ourselves for the purpose of doing therapy with intel-

* Reprinted and edited from *The Proceedings of the 1949 Spring Conference of the Child Research Clinic*, with the permission of the Woods Schools and Leo Kanner.

ligent children who have emotional conflicts. We do not wish to be bothered with the dull and inarticulate child who cannot possibly present any intricate problems of interpersonal relationships. We realize that somebody has to deal with those individuals but this is not our job."

Now we know that the parental attitudes are important in regard to the exceptional child and that they too can have emotional problems. An experienced examiner can often infer from their behavior how the exceptional child has been treated at home. There are those who have been accepted fondly, managed with the gentle firmness of which only genuine affection is capable, and helped to find a warm place at the domestic hearth. Most of these children, unless pushed by inner impulsions of so-called "organic drivenness," are examined with relative ease, make themselves comfortably at home in the office, show trust and confidence in strangers, can be amicable and compliant in their dealings with others.

Then there are those severely retarded children who have been rejected strongly by their parents, have been the recipients of coercive attempts to "brighten them up," have been exposed to impatience and stern methods of correction, and have had no experience with approval of any sort. Such children are in most instances extremely restless at the office, offer great resistance to examination, shrink back suspiciously from the examiner, and defend themselves against a hostile world by means of indiscriminate destructiveness and aggressiveness.

The basic need for affection, acceptance and approval exists whether the I.Q. be 30 or 70 or 150, whether the body be a model of aesthetic perfection or a distorted replica of the human frame, whether the movements be graceful or made awkward by spasticity and athetosis, whether diction be distinct and melodious or sound like a caricature of the spoken word.

The exceptional child, not unlike any other child, can be comfortable and secure when he knows that he is wanted and liked by those around him, and he can be uneasy and crushed when he senses rejecting coldness. His status in the family structure is determined by the attitudes of the members of the household.

These attitudes derive largely from three important sources which interact to create the specific emotional climate in the home of the individual child. They may be epitomized briefly as cultural, situational, and intimately personal determinants.

There are certain cultural implications, certain historically anchored group opinions about human imperfections which exert their influence on the families of exceptional children. This influence is often stronger than logical reasoning and can be seen at work among the sophisticated not noticeably less than among the untutored. It offers powerful competition to sober attempts at educating the public; any such efforts run against a stone wall of firmly entrenched patterns of communal (one might almost say, tribal) thinking and feeling.

A change has begun to take place, recently at least, with regard to neurologically and orthopedically handicapped children. There was a time when persons afflicted with misshapen bodies were supposed to be cursed with unpleasant personality traits. Nineteenth century fiction made much of the disgruntled cripple who, trying to get even with destiny, takes fiendish revenge on all humans. Scientists followed suit for some time and invented the lore of the "crippled personality," one tough, spiteful, vindictive, and malignant. Only in the past few decades has it been recognized that handicapped children, as any other children, cannot be understood without the knowledge of the attitudes of the people about them. Allen and Pearson found that the personalities of some children with physical defects are not affected by their trouble; those who reacted with feelings of inferiority, inability to face difficult situations, a desire to be in the center of attention, and actual or fancied overcompensation had causes for these reactions other than the physical defect alone.

The public no longer points a mystified or ridiculing finger at a crippled person; if anything, there is a tendency to look the other way as a more or less ostensible token of respectful discretion. But there is still a widespread custom of looking down on the retarded or delinquent child, on the former with a mixture of superiority and commiseration, on the latter with a feeling of annoyance and condemnation.

Our culture, centered around cognitive sophistication, puts a premium on intellectual prowess. One hears and reads again and again about the enormous burden which the existence of the intellectual have-not and have-less portion of the population places on the rest of us. Somehow, a greater closeness is felt to the fraudulent banker, the corrupt politician, and the bigoted bluenose than to the good-natured, compliant, harmless moron, who is just about good enough to be the butt of more or less insipid jokes.

The parents of exceptional children have usually brought these group sentiments into their feelings about their offspring as a part of their cultural equipment. The discovery of the child's difference from other children is one of the most harrowing experiences, largely because of the realization that the child's world will view him as an outcast for whom there is no place in the ordinary scheme of things. Man's insult, added to Nature's injury, pushes the child into an untenable position which cannot but be reflected in his status in the family structure. The production of a deviate threatens the parental sense of prestige in the community. His existence raises a number of perplexities: How are the child's siblings going to explain him to their friends? How will future suitors of the child's sisters react to the discovery of an abnormal relative? Do the laws of "heredity" endanger the future offspring of the child's siblings?

One couple had three children, one of whom was severely retarded. They were reasonably fond of him and reluctant to send him to an institution. But they were greatly perturbed by the issues of prestige and communal standing of their normal children. They announced that they were going on a vacation trip, took the retarded child with them, placed him in a distant institution, made a large enough payment to assure his lifelong retention there, and returned home, declaring to the other two children and all their relatives and friends that, while on the trip, the child had taken ill with pneumonia and died.

The arrival of a child sets up automatically a series of expectations which are taken for granted. Puzzlement begins when an infant does not attempt to walk at the usual age. But it is often the lag in speech development that brings about the first major parental anxieties, which are met initially with wish-fulfillings, reassurances. Memories are revived of this or that kin, neighbor, or acquaintance who did not begin to talk until a relatively late age and turned out to be a well-functioning individual. There are still too many physicians and self-styled psychologists who, out of inadequate information or misapplied kindness, encourage the parents in their understandable desire to find a way of escaping from an unpleasant reality. The parents are sent away with the comforting prophecy that the child will "outgrow," "catch up," and "make up for lost time." The rude awakening that is sure to come eventually is rendered so much more painful by the preceding application of such supposedly authoritative analgesics.

The family's realization of their child's handicap is accompanied invariably by an assessment of his future role in the educational and social scheme. Our culture has, as every other culture, evolved certain patterns of child rearing. These patterns are followed through with a series of situational arrangements as regular and almost as inflexible as any tribal rituals connected with infancy, childhood, and puberty. Every child goes to the first grade in school at the age of six years. Every child has his emergence from childhood acknowledged through confirmation, by whatever name it be called in the different denominations. Every child is steered toward an occupational career and a set of conventions in keeping with the social texture of the family group. Some children join clubs and go to summer camps. Some have their nuptial availability attested inferentially in coming-out parties.

The parents of the exceptional child find themselves confronted with the need for a downward revision of such expectations. Many help themselves, or can be helped, to view the future on the installment plan, as it were. They derive satisfaction from the observation that their child, at three years of age, can do more than he could at two years, and at four years of age more than he has done at three years. Their emphasis is on the gain rather than on the slowness of gain. But there are many other parents who are worried frantically about the ultimate. They bargain with destiny and with the doctor, on whom they look as an accredited representative of destiny. The doctor is endowed with a sort of magical propensity. All will be well if the doctor could be cajoled by the parents into the prediction that, unlikely as it may seem at the moment, the child could be maneuvered into graduation from high school or that their girl will at least be capable of pouring tea at parties gracefully. Such pleas ought to be taken seriously; they stem from a pathetic hope that the child can somehow be refitted into the traditional family structure.

This resort to magic was perhaps best illustrated by the father of a severely retarded little girl, a warm-hearted Army colonel, who was intellectually aware of his daughter's handicap with all its implications. While he accepted the results of the child's examination and even asserted that he had anticipated them fully, he begged for my permission to go on hoping for some miracle which would transform little Shirley Ann into a normal individual. Might he not daydream that science was just about to make a startling discovery that would accomplish such a

feat? Needless to say that the touching request was heeded and that the permission was granted.

The press of the nation has played without mercy on the heartstrings of parents who wait for such a miracle. Any dimmest ray of hope expressed cautiously by an authority is promptly presented in journalese fashion as a burst of sunlight. For instance, the newspapers and popular magazines have seized upon recent experiments with glutamic acid. The press, disregarding the reports of the meager and as yet equivocal findings, has chosen to extol the drug with dithyrambic glee. Many parents tend to become impatient with their physicians or with the staffs of residential schools who fail to demonstrate on their particular child the assumed infallibility of the fourth estate's popularizer of science.

Lucky are the parents who are allowed to adjust themselves to the needs of their exceptional child without disturbing interferences. The parents are only a part of a family constellation; there are grandparents, uncles, aunts, cousins, and more distant relatives. Their influence depends on the degree of the parents' emotional dependence on them. This dependence has often been exploited distressingly.

The mother of a severely disturbed, organically overactive, post-encephalitic boy did all she could to cope with her child's difficulties. Her husband, a not too successful lawyer, depended emotionally and economically on his wealthy father who accentuated his tyranny by incessant references to his will, which he was going to change at the slightest sign of his son's insurrection. This despotic man persuaded his son that there was nothing wrong with the little boy, that the diagnosis made by the several doctors who had been consulted was utterly mistaken, and that the child's problems were solely the effect of the mother's inability to rear her offspring. The husband began a campaign of recriminations against his wife, which drove her to despair and nearly wrecked the marriage.

The mother of a little mongoloid girl would have adjusted reasonably well to her child and to her child's retardation if it had not been for her mother-in-law who lived within walking distance of the child's home. Every day, this grandmother came to the house, looked at the child, and asked the same stereotyped question: "When are you going to make something of this child?" The mother got no support from her husband, who merely suggested that she "pay no attention." She came to dread her mother-in-law's visits and eventually had to be taken to a psychiatric

hospital with a reactive depression. The critical grandmother took the child, determined to prove that her methods would brighten up the girl. After less than two weeks, she insisted that the child be placed in an institution, an arrangement which she would have fought tooth and nail if it had been suggested before.

Placing a child in a residential school seems on the surface like a simple procedure. You make your recommendation to the parents and explain to them the advantages. If they act on your advice, they are considered "sensible"; if they balk—well, what can one do with "uncooperative" people? This sort of reasoning fails to consider some highly significant and involved emotional features.

Placement invariably denotes a removal of the child from the family scene. This removal may be viewed essentially as a temporary loan of the child with the anticipation of later reunion, the painful amputation of an intrinsic part of the family organism, the tossing out of an irritating foreign body, or even the assignment to the institution of the role of a premature coffin. Any one of these attitudes is accompanied by conscious and not so conscious feelings which make a crazy quilt of relief, hope, despair, guilt, and self-justification before the world. Reluctant grandparents must be appeased; an acceptable formula must be found for the perplexed young siblings; the family budget must be reappraised; the earlier faith in indiscriminately prescribed vitamin preparations and glandular extracts must be discarded.

The selection of a residential school raises additional situational problems. Geography and finances become paramount issues. In many parts of the country, the state-supported institutions are nearest at hand. Some of them are modern, humane, progressive places, which can be recommended without hesitation; even then certain prejudices against public training schools must be overcome. There are other institutions which are pre-medieval dumping places to which one would not like to send a dog. There are hardly any public hospitals for psychotic, epileptic, or severely neurotic children. It is pathetic to witness the frustration of parents who see the promised land of good private schools before them and cannot afford to send their children there. Even when finances are fairly adequate, the distance of the school from the child's home makes it often impossible to visit the child often, and there is the parental fear that the child will become a stranger to the family.

Regardless of whether the exceptional child remains at home or is

placed in an institution, his existence affects not only his own place in the family structure but also that of other members of the group. There is often a tendency to expend so much emotion and money on the handicapped child that there is little left over for the healthy child or children of the family. Overprotection of the dependent child has often been coupled with varying degrees of neglect of the siblings who "can shift for themselves." Many an intelligent adolescent had to be deprived of the opportunity to go to college because the financial resources of the parents had been depleted on behalf of the handicapped brother or sister.

Even the size of the family is sometimes influenced by attitudes surrounding the presence of the exceptional child, especially if he happens to be the first born. Two major apprehensions govern the parents' hesitations about bringing another child into the world. One is centered around the fear that the dependent child will need all of the mother's ministrations over a long period of time and that, therefore, she should keep herself free from further maternal entanglements. Another apprehension revolves around popular misconceptions or uncertainties about heredity. I still have to see the parents of a first-born child afflicted physically or intellectually who do not ask the question: "Is it safe to have another child?" These are often healthy, intelligent, stable young couples who, had they consulted the most competent geneticist before the first conception, would have been encouraged strongly to go ahead and reproduce. Their first experience with parenthood, entered into with all the confidence in the world, has taught them that every pregnancy entails a risk; if they decide on having another child, the thought of the possibility of repeated disaster may obtrude itself on the parents to the extent that the pregnancy becomes a nightmarish experience of anxiously watchful waiting. Those couples are better off who have produced normal offspring before the arrival of their handicapped child; this gives them at least the reassuring knowledge of their capacity for bringing healthy children into the world.

Some or all of these cultural and situational factors confront people of different degrees of intelligence and emotional stability. Their own biographic background, which has helped to shape their personalities, has contributed to the manner in which they adjust to pleasant and unpleasant realities in general, and to the presence of a handicapped child in particular.

In essence, one may distinguish three principal types of reactions:

1. Mature acknowledgment of actuality makes it possible to assign to the child a place in the family commensurate with his specific peculiarities. The child is accepted as he is. The mother neither makes herself a slave to him, nor does she take her inevitable frustrations out on him. She goes on functioning in her accustomed way. She continues her associations with her friends and acquaintances. The father shares her fondness for the child. Both parents manage to appraise the needs of their normal children as well and to distribute their parental contributions accordingly.

2. Substitutive disguises of reality create artificialities of living and planning which tend to disarrange the family relationships. The fact of the handicap is seen clearly but is ascribed to some circumstances, the correction of which would restore the child to normalcy. Some culprit is assumed in the child's character or body or in the educational inadequacy of the trainers. The child's poor scholastic progress in the regular grades is interpreted as a manifestation of laziness or stubbornness which must be exorcised with painfully punitive methods; the full burden is placed on the child himself. His low marks, his failure of promotion, the school's recommendation that he be placed in an ungraded class, are taken as a result of the blameworthy effrontery of a wilfully unaccommodating child. Parental pressures to speed up his lagging speech development, to correct his indistinct articulation, and to improve his homework heap misery on the child, who finds it impossible to gain parental approval.

Instead of, or in addition to, the child himself, his body comes in for frantic attempts at correction. Tongues are clipped, prepuces are amputated, tonsils are evicted with the notion that somehow such measures will undo the reality of his handicap. Thyroid extract, caused to be swallowed by some physicians with hazy etiologic notions, and chiropractic adjustments of an allegedly misplaced vertebra are still must too frequently employed as a means of disguising reality.

3. Complete inability to face reality in any form leads to its uncompromising denial. There is absolutely nothing the matter with the child. Those who are anxious about his development are merely pessimistic spreaders of gloom. Some children walk or talk sooner than others, and some take their time. This is often the reaction especially of fathers who have no knowledge of children and do not wish to be bothered about them. They are away at work most of the day, have a

glimpse of the child when he is asleep, hear the child's laughter on the rare occasions when they pick him up, and conclude with a shrug of the shoulder: "I can't see anything unusual."

A busy surgeon, the father of three children, could not see anything unusual about his youngest child, a severely withdrawn, autistic boy whom his mother brought to our clinic against her husband's wishes. The surgeon finally came, after several invitations. He had no idea of the child's developmental data; he left all this to his wife, he declared complacently. An attempt was made to get an emotional rise at least by making him angry. It was asked whether he would recognize any one of his three children if he met him unexpectedly in the street. He thought for awhile, scratched his head, and then said calmly: "Well, I don't really know if I would." He felt that his wife's concern about the child was all nonsense but if she wanted to bring him to the clinic, that was all right, too; after all, this was her own business.

Any slightest acquaintance with the elementary principles of psychodynamics is enough to indicate that all these different types of attitudes and resulting practices are deeply anchored in the emotional backgrounds of the individual parents and other relatives. Major differences of attitudes toward the child are usually a part manifestation of general matrimonial incompatibility, brought acutely to light by the presence of the exceptional child. Smothering overprotection, cold rejection, nagging coercion, or open neglect defended as proper tactics necessary to cope with the child's handicap, are in the main fundamental, dynamically evolved reactions which seize on the handicap as a readily accessible, superficial explanation.

All of this leads to the inescapable conclusion that the study and treatment of exceptional children would be sorely incomplete if the emotional factors of family relationships were left out of the consideration. In every instance, the place of the exceptional child in the family structure calls for a thorough overhauling, often with the urgent need for therapeutic interviews with the parents. Frequently enough, the parents themselves beg for such an overhauling; they do so by asking seemingly specific or insignificant questions, and are most appreciative if such hints are understood and they are given an opportunity to talk themselves out before an experienced and sympathetic listener.

The Child with Retarded Mental Development

Teachers often find children in their classes who, despite all efforts, do not make satisfactory progress. This apparent lack of ability to learn or to achieve in school presents a serious problem of instruction and classroom management. Knowledge of the cause or causes of the difficulty is necessary before effective teaching of the child can proceed.

The causes for failure to learn or to achieve in school may be physical or emotional difficulties, home or neighborhood problems, or mental retardation. Other chapters of this book will discuss school failure in terms of physical, cultural, and emotional problems.

Many terms have been used to describe mental retardation and the various degrees of this phenomenon. However, the professions that work with the mentally retarded are making progress toward a realistic nomenclature, and the most comprehensive study¹ of terminology and classification of the mentally retarded, published in September, 1959, by the American Association on Mental Deficiency, has made great strides in this direction. The interdisciplinary definition accepted by the Association is the following: "Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following: (1) maturation, (2) learning, and (3) social adjustment." Considerations of space prohibit inclusion of further data from this report; however, the editors recommend this work to readers who are

¹ Rick Heber, *A Manual on Terminology and Classification in Mental Retardation*, Monograph Supplement to the *American Journal of Mental Deficiency*, September 1959, 64, No. 2.

interested in the medical and behavioral classification of the mentally retarded.

To the educator, the child who is retarded mentally is one who is handicapped educationally and socially because of low intelligence to the degree that special educational services should be provided. An issue of prime concern is where to meet the educational needs of the "trainable" mentally retarded child, who is capable of learning only to care for his personal needs. Some authorities favor a public-school program; others, institutional care; and still others, another type of child-care center.

Other areas of concern are those of psychotherapy, counseling, and vocational rehabilitation for the "educable" child, or the child with minimally retarded mental development. In the past the mentally retarded elementary-school child was often provided with a school program but was neglected as an adolescent and young adult. The latter portion of this chapter discusses various types of programs designed to meet the vocational and social needs of these groups.

The United States Office of Education² recently allocated approximately a million dollars for studies in the education of the mentally retarded in order to help solve many of the perplexing problems in this area. As a result, many research projects which cover a wide range of topics are now in progress. These studies can be roughly grouped into the following broad areas: (1) definition and identification; (2) learning processes; (3) language and communication difficulties and certain physical limitations; (4) effects of different types of school organization; (5) teaching methods and procedures; and (6) the effects of school programs on post-school adjustment. The information derived from these studies is eagerly awaited by those who are concerned with problems of exceptional youth.

The first article in this chapter, by Dr. George Jarvis, provides a general orientation to mental retardation and its causes. Dr. Leo Kanner's article emphasizes care in diagnosis; J. E. Wallace Wallin, pioneer in clinical psychology and special education, and Eugene Brockopp discuss prevalence. Goals for the child who is retarded are discussed by Harold A. Delp. How different schools have approached the educational challenge of the mentally retarded is treated in the review of educa-

² Romaine Mackie, "Exceptional Years for Exceptional Children," *School Life*, 40: 8-10, January 1958.

tional programs by Marion J. Erickson. Although today many schools are gradually accepting the responsibility for trainable mentally retarded children, William M. Cruickshank raises the question of where these children can best be served. It is clear that the schools alone cannot be responsible for the mentally retarded, and Seymour B. Sarason discusses the need for a community approach to this problem. The last two articles in this chapter, by Samuel A. Kirk and Salvatore G. Di-Michael, point to two important areas in the work with mentally retarded adolescents—counseling and vocational rehabilitation.

7. Factors in Mental Retardation *

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What are the present medical facts concerning the etiology of mental retardation? In this selection the known and suspected causes of mental retardation are discussed in terms of hereditary and environmental defects. As Dr. Jervis points out, the history of a child's retardation is a complex patterning of both.

Various sciences have contributed to our present concept of mental deficiency. For a long time sociologists have observed that there are individuals who, since childhood, have been socially incompetent and incapable of adequate self-support. Psychologists, coming later, have noted that this social incompetence is often associated with defective intellectual development. They have discovered ways of measuring the degree of intellectual deficit and of establishing certain correlations between intellectual endowment and social attainments. Then as medical science advanced, physicians became increasingly aware that some dis-

* Reprinted and edited from *Children*, 1: 207-211, November 1954, with the permission of *Children*, U.S. Department of Health, Education, and Welfare, and George Jervis.

eases occurring during fetal life or in infancy may result in lesions of the brain with consequent mental defect. Finally, with the advent of the science of human genetics, the relevance of genetic factors in determining deviation of intelligence emerged.

Mental deficiency may be defined as a condition of arrest or incomplete mental development existing before adolescence, caused by disease or genetic constitution and resulting in social incompetence. This definition includes both the sociological concept which stresses the social inadequacy of the defective, and the psychological concept which is considered in the term "arrested" or "incomplete" mental development. The biological viewpoint is embodied in the mention of genetic factors and diseases.

Intellectual impairment developing after adolescence is not usually known as mental deficiency but as dementia, a customary differentiation for more than a century in both legal and medical thinking, in spite of its dubious validity.

Thus defined, mental deficiency is not a single condition, but a symptom common to diverse conditions of disparate etiologies and of various manifestations.

In the recognition of mental deficiency, the results of psychological examination play the leading role. The mental age (MA) is determined by psychometric tests and the intelligence quotient (IQ) is calculated as the ratio of the mental age to the chronological age (CA):
$$IQ = MA/CA \times 100.$$
 Other factors besides intelligent quotient are taken into consideration, such as educational attainment, emotional reactions, general behavior, and social adjustment. The information from both familial and personal history is carefully evaluated. Finally, a complete medical examination is performed, using modern techniques of clinical and laboratory medicine. It is upon the evidence thus collected that the diagnosis is made.

Considerable difficulty is often experienced in diagnosing the borderline cases between "subnormality" and mental deficiency. The criterion of social adjustment is decisive in these instances.

In estimating the incidence of mental deficiency, a great deal depends upon the criteria of diagnosis used in the assessment of defective individuals. For instance, if the criterion of social incompetence is adhered to, the incidence will be higher in strongly competitive urban environment than in rural communities. If a purely psychological cri-

terion is adopted, the test used and the arbitrary point of demarcation between the defective and the nondefective individual will determine to a large extent percentage figures. If one accepts an IQ of 75 instead of one of 70 as the lower limit for the nondefective, the percentage of defective population will be over twice as large. Estimates based on institutional censuses are obviously inadequate and always too low, since only a fraction of the mentally defective population is institutionalized. Those based on large-group testing of school children have their limitations and are perhaps too high. Accurate surveys using modern techniques of securing data and uniform criteria of evaluating intellectual and social development have been few in number and limited in extension.

On the basis of scattered and incomplete data collected from many sources, it may be assumed that the incidence of mental deficiency in the general population is around 1 percent, using IQ below 70 as the criterion. This figure yields a total of 1,500,000 mental defectives in the United States.

Defectives are usually classified into three groups—idiots, imbeciles, and morons, but the corresponding terms of low-grade, medium-grade, and high-grade defective are to be preferred. Defined in sociological terms and in the language of the English Mental Deficiency Act (1927), idiots are persons whose mental defectiveness is of such degree that they are unable to guard themselves against ordinary physical danger. Imbeciles are persons whose mental defectiveness, though less extreme than in idiots, still prevents them from managing themselves or their affairs, or, in the case of children, from being taught to do so. Morons are persons whose mental defectiveness, though not amounting to imbecility, is yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, appear to be permanently incapable of receiving proper benefit from instruction in ordinary schools.

In more precise psychological terms, an idiot is a person having a mental age of less than 3 years, or, if a child, an intelligence quotient of less than 20. An imbecile is a person having a mental age of 3 to 7 years, inclusive, or, if a child, an intelligence quotient from 20 to 49, inclusive. A moron is a person having a mental age of 8 to 11 or 12 years, or, if a child, an intelligence quotient from 50 to 70 (or 75).

Although of considerable value in dealing with practical problems

of defectives, both sociological and psychological classifications present limitations, being purely descriptive in character. More comprehensive are medical classifications which follow mainly etiological criteria, grouping patients according to the cause of the defect. While this type of classification may offer considerable difficulty in individual cases, because of scanty and contradictory etiological data or the fact that more than one etiological factor may be responsible for the defect, it does bring about a better understanding of the problem in relation to preventive measures.

Etiologically, mental defect can be divided into two large groups—endogenous or primary, and exogenous or secondary. In the exogenous group the defect comes chiefly from environmental factors. This group can be subdivided into types according to the causative agent—infectious, traumatic, toxic, and endocrine. On the other hand, an endogenous defect is determined mainly by those hereditary factors known as genes. The group includes conditions caused by the combined action of many genes each of which alone would have an insignificant effect, or to the action of a single dominant or recessive gene.

Hereditary Defects

Mental defects determined by multiple genes are “undifferentiated” in that they carry no specific physical distinction and are “aclinical” in that they show no clinical manifestations other than intellectual impairment. This group has also been designated by other terms: “residual” because it is composed of individuals who are left after a classification of specific forms; “subcultural” because so many of its members originate from low cultural environments; “familial” because of the high frequency of the condition in the patients’ families. Since these cases can be diagnosed only by psychological and social adjustment criteria, differentiation between high-grade morons and dull normal individuals may be difficult. While anti-social behavior and psychopathic traits occur in the group, they are far from universal.

Estimates of the incidence of undifferentiated mental defects run between 30 and 75 percent of all the mentally retarded, the lower figure probably running nearer to the facts. It includes defects of all grades, but high-grade morons predominate.

Genetic constitution, however, is not the only source of all undif-

ferentiated defectiveness, for environmental factors, such as subcultural milieu and poor hygienic conditions, undoubtedly play a causative role. The task of tracing the source of the defectiveness in individual cases is not easy, particularly when malnutrition and deprivation have been in the picture.

Some differentiated defects are determined by the presence of a single dominant gene transmitted from parent to child. Such defects are always traceable in the family history unless of a type that prevents reproduction. Frequently they turn up in severe form in alternate generations, occurring in the intermediate generation only in incomplete form. Sporadic occurrences in families with no history of the defect are probably caused by a new mutation of a parental germ cell. Data collected at Letchworth Village indicate that dominant genes probably account for only about 1 or 2 percent of all mental defects.

There are also clinically recognizable defects caused by the presence of two similar genes, known as recessive genes, one from each parent. Since two persons of blood relationship are more likely to carry similar genes, such defects occur more frequently among the offspring of consanguineous marriages than in the general population.

Environment-produced Defects

A large but yet clearly determined proportion of defectiveness comes from factors outside the hereditary constitution, including infections, trauma, poison, glandular disorders, and physical or emotional deprivation. Rough estimates, based on unpublished data from a number of institutions, indicate that such factors may account for at least half of the mentally retarded population in the country.

Brain damage resulting from infection of the nervous system may occur in the womb or during infancy or childhood. The type of infectious agent, the severity of its attack, and the age of the child when attacked, determine the degree of damage.

One of the most prevalent of such infections used to be syphilis, transmitted during gestation from an infected mother through the placenta to the fetus and resulting in brain damage to the fetus and later mental defect in the child. While syphilis still is responsible for a small percentage of all defectiveness, the proportion of infected children has already been reduced by venereal disease control programs and un-

doubtedly will be further reduced in the future. Especially effective has been the increasing adoption of routine serological tests of pregnant women, prescribed by law in many states.

One form of severe mental deficiency comes from rubella infection, or German measles, in the mother during the first three months of pregnancy. Besides the intellectual impairment resulting from fetal brain damage, the disease's attack on the fetus often produces congenital deafness, anomalies of the heart and eyes, and microcephaly or under-sized head and brain.

Facts about the effects of other virus infections of the mother on the fetus are not so definitely established. It is possible that some other viruses may act in a manner similar to that of the rubella virus.

Brain fever is estimated to be responsible for the mental defects of 10 to 20 percent of all institutionalized defectives, according to the Letchworth Village data. Caused by one of the encephalitis viruses or by a bacteria such as the meningococcus of meningitis, it often strikes in infancy and childhood. While many children recover from it completely and others die, some recover with permanent impairments, the most common of which is mental defect. Measles, scarlet fever, chickenpox, whooping cough, influenza, and other communicable diseases common in childhood also occasionally leave brain damage.

Patients whose mental defectiveness has resulted from acute attacks of these diseases are usually referred to as post-encephalitics. The degree of mental defect among them varies considerably with the individuals. Many of them exhibit a peculiar behavior pattern marked by episodes of overactivity, restlessness, impulsiveness, assaultiveness, and wanton destruction.

While accidents resulting in injury to the brain may sometimes occur in infancy or early childhood, they are insignificant in comparison to injuries at birth or in the neonatal period as a cause of mental defect. Cerebral trauma during birth has been variously estimated to cause from 10 to 50 percent of all defectiveness. However, the incidence in institutionalized defectives does not seem to be above 20 percent. According to data gathered by the United Cerebral Palsy Association, from one-half to two-thirds of the children in the general population showing evidence of birth injury are not mentally defective.

Difficult labor and prematurity are the most frequent causes of brain damage during birth, the former because of the risk of mechanical injury

and the latter because of the immaturity of the brain. An immature brain is more prone to damage.

Brain damage at birth comes either by asphyxia or by hemorrhage. Asphyxia, which must be present for a relatively long period to produce irreversible damage, may result from premature separation of the placenta, cord complication, overdosage of the mother with analgesic drugs, or delayed breathing by the newborn. Hemorrhage, which may be within the brain or its envelopes, comes from direct injury during delivery by forceps or by a tearing of the tentorium, one of the membranes of the brain, in compression of the head during its passage through the pelvic canal.

Little is known about the effects of toxic factors transmitted from mother to fetus during pregnancy, but evidence exists for suspicion that there are several ways in which fetal poisoning, resulting in malformation and mental defectiveness, may occur.

Mongolism or mongoloid idiocy, a condition with a characteristic physical appearance, may also be toxic in origin, although little is definitely known about its etiology. Some authorities believe that the condition appears in the fetus before the third month of pregnancy as a consequence of a variety of toxic conditions inherent in the mother and associated with advanced age, endocrine disorders, or pathological lesions of the uterus. Mongoloids comprise about 5 to 10 percent of all defectives. Their IQ usually runs between 15 and 40. Because these children are prone to infection, they have a higher mortality rate than other defective children.

While a certain percentage of mental defectives suffer from some glandular dysfunction, the proportion of defectiveness caused only by endocrine disorders is small. Cretinism is a form of mental defect definitely traceable to hypothyroidism or impaired function of the thyroid gland, either because of its lack of development or early destruction. This disease, which is also distinguishable by physical appearance, is endemic in areas where goiter is also prevalent but it also occurs sporadically elsewhere. Dysfunction of the pituitary gland causes mental defect, the most common type, Froehlich's syndrome, being characterized by obesity, underdeveloped genitalia, and mild intellectual impairment.

Emotional deprivation, frustrations, and insecurity may not only bring about a condition among normal children resembling mental defect but may cause incorrect estimate of the intellectual abilities of high-

grade defectives, especially those also physically handicapped. Pseudo-feble-mindedness is produced in normal children so deprived by an emotional blocking which responds to psychiatric treatment.

The most severe form of pseudo-feble-mindedness, infantile autism, is evidence of the importance of emotional factors in the development of intelligence. Children so affected behave like idiots, do not talk, respond to stimuli, nor engage in any activity requiring intelligence, even though their intellectual capacity may be normal or better than average. Psychiatric examination shows that their apparent defect is a form of withdrawal.

Deprivation of cultural stimulation in some isolated communities still plays a role today in producing the apparent low level of intelligence among the populace. More tragic are the effects of such deprivation on patients with disabilities interfering with academic learning. False diagnoses of feble-mindedness too often occur among children whose only impairments are in hearing, reading disability, word comprehension, minor motor handicaps, or other disabilities. In these children emotional factors are undoubtedly also contributing to the picture of apparent intellectual deficit.

In spite of the growing knowledge of the causes of mental defects, few specifics are available for their treatment or prevention. As the foregoing shows, mental retardation is not an entity itself, but a characteristic of a variety of conditions, each with a different cause. Moreover, in each form there is a wide range of intellectual ability.

Prevention for some forms may lie only within the scope of eugenic measures; though more scientific knowledge in the field of human genetics would be required before such could be confidently prescribed.

Greater possibilities for preventing the exogenous forms through medication and public health measures may be expected to be realized as knowledge of intrauterine life and development increases.

While treatment in the strict medical sense can be applied only to a small number of mentally defective individuals, in the broader sense of care and training it can be applied to all. Such a wide variation of conditions exists among children with mental defects that what kind of care and treatment each receives must be determined individually in line with a prognosis based on an accurate diagnosis of the case. While the goal can rarely be cure, it can almost always be improvement or the

achievement of the maximum intellectual and social functioning of which the individual is capable.

8. Emotional Disturbances Simulating Mental Retardation *

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What is the role of severe emotional and social deprivation in the genesis of mental retardation? What reservations should be made in interpreting an intelligence-test score? Why is there a revolt against an overemphasis on the results of intelligence tests? Dr. Kanner's article presents a challenging discussion of these topics. The selection is followed by a short excerpt, by Kingsley Davis, from a case study of a child whose early development was devoid of social stimulation. The case of Isabelle illustrates the genesis of apparent mental retardation as a result of social and emotional deprivation.

In the early textbooks, during the days of academic armchair psychology, it used to be customary to differentiate among three principal categories of mental functioning:

1. The cognitive or intellectual functions, which include comprehension, thinking, reasoning, judgment, inventiveness, skill, information, and utilization of past experiences.
2. The conative functions, which manifest themselves through the "instincts," drives, urges, appetities, action tendencies, degree of initiative, manner or persistence in striving for a goal, and speed of performance.
3. The emotional responses to life situations.

* Reprinted and edited from *Public Health News*, 38: 313-332, October 1957, with the permission of the New Jersey Department of Health and Leo Kanner.

When psychometric assessments were introduced at the beginning of this century, tests were applied and interpreted as if cognitive, conative, and emotional functions were indeed separate sets of mental performance, as nineteenth century psychology had believed them to be. Some of us still remember the time when it was considered appropriate to single out an "instinct," a specific item of emotional response, or a certain cognitive ability for a circumscribed phenomenological study, with little, if any, regard for the totality of experience and behavior from which the items had been sequestered. The item, whether it be appetite, sleep, sex urge, fear, anger, musical ability, or memory, was, as it were, put into a parenthesis and left there, treated as if it led an independent existence. The investigators knew, of course, that a parenthesis is a part of a larger whole, but they chose to shove aside anything that seemed to be outside the bracket. They felt that you must be acquainted with each of the numerous parts before you could ever undertake to fit them back understandingly into the totality from which they have been torn out. Much valuable work was done in this manner. However, the intended lack of relatedness to the practical issues of living, the carefully cultivated detachment from the reality of connections and pertinences created and maintained an artificiality which left such studies in the realm of academic niceties.

In keeping with this kind of a premise, "intelligence" was evaluated as a more or less isolated function or set of functions. The intelligence quotient was looked upon as something which a child "had," regardless of anything else, as an innate, immutable property which a poker-faced tester, anxiously guarding an impersonal attitude, could ascertain once and for all with a battery of tests. It was not until a great deal of testing and retesting had been done that doubts arose about the previously assumed "constancy of the I.Q." Gradually, more attention began to be paid to the integrative relationships between test results, emotional factors, and interpersonal give-and-take. These relationships have been formulated most brilliantly by David Rapaport in a "set of assumptions which . . . have proved themselves useful in the clinical evaluation of test results." These assumptions are as follows:

1. Every individual is born with a potentiality for intellectual endowment which may be referred to as "natural endowment." This potentiality unfolds through a process of maturation, the limitations of which are set by the quality of the endowment.

2. The maturation process is fostered or restricted by the wealth or poverty of stimulation in the educational environment during the earliest formative years.

3. *The maturation process is one aspect of personality development and is guided, fostered, or restricted by the emotional development which takes place.*

4. In the course of development, natural endowment differentiates into various functions, which can be tapped by intelligence tests, in which these functions underlie achievement.

5. Emotional disorder or brain injury may cause a slow-down, arrest, or regression in the maturation of natural endowment.

6. The functions that develop unhampered will automatically pick up and assimilate facts and relationships from the educational environment, and organize them into a frame of references for new experiences and production.

7. Schooling will feed these functions with systematically presented material to enlarge the individual's repertoire of facts and relationships.

8. Wealth of late adolescent and adult life experience may further enlarge this repertoire.

9. Special cultural predilection may lead the individual to richer sources of information on facts and relationships.

With these assumptions as a background the tester "endeavors to draw as many inferences as possible from the intelligence test material concerning the quality of natural endowment, the wealth of the educational environment, the influence of schooling and of life experiences, and the strength of special cultural predilections. Thus, he obtains a baseline against which to evaluate the implications of the specific type of intelligence structure, the specific type of personality development, the impairments of previously achieved intelligence levels, and the temporary inefficiencies which prevent otherwise unimpaired intelligence from functioning well."

We are barely beginning to realize the extent of emotional penetration into "otherwise unimpaired intelligence." We are barely emerging from an era when elegantly reasoned "insight" was handed out as the treatment of emotionally disturbed people, when parents, teachers, and juvenile court judges tried to "help" misbehaving children through logically phrased warnings about consequences. Cognitive distinction between right and wrong is still a major issue in criminology, barely

beginning to be supplemented by the recognition of motives and mechanisms which regard or distort a good "intellectual" knowledge of the existing moral code. Obsessive patients cannot shake off their obsessions by the mere appreciation of their unreasonableness. Individual and political paranoia goes so far as to press intelligence into the service of emotional illness; once emotion has been allowed to set up a few premises, paranoid thinking evolves an air-tight system full of seductive logic and dazzling brilliance aided by high intelligence quotients.

"Intelligence," Gardner Murphy wrote, "is fettered by the manacles whose design has been imperfectly studied." This statement by a leading psychologist, the work of Rapaport and his associates, and the observations of emotional interference with intellectual functioning in the psychoses, all point to an increasing realization of the need to investigate those "manacles," their modes of fettering intelligence, and ways to free intelligence from them. Such investigations may lead to a revaluation of certain statistical finding. For instance, they may show whether lower than average I.Q.s of Negro groups as compared to white groups really indicate any sort of racial "inferiority" or are the outcome of restricted "stimulation in the educational environment during the earliest formative years," a possibility which might well be in keeping with Rapaport's second point. These questions cannot be answered at present, but the fact that they have been raised of late is a healthy departure from too ready and rigid identification of the I.Q. with innate potentialities.

The fact that emotional factors may play havoc with the capacity for judicious reasoning is by no means a matter of recent discovery. People have known from time immemorial, and have expressed in popular phraseology, the commonly observed phenomenon that fear or anger may cause a person to "lose his head." Alexander Pope, in whose time the judgment of intelligence was neither aided nor hampered by psychometric assessments, managed to condense in a few words the whole topic which forms the thesis of this presentation. He wrote in his *Moral Essays*:

*"The ruling passion, be it what
it will,
The ruling passion conquers
reason still."*

Some may not be too pleased with a reference to reason and intelligence as if they were synonymous. I shall not allow myself to yield to the temptation of trying to offer a definition of intelligence. Wiser men have done this with varying success. At the risk of being found guilty of over-simplification, I should like to epitomize the prevailing concepts of intelligence as the capacity to think, solve problems, and analyze situations in life. Goddard, crystallizing the results of a lifetime of work and thought, suggested that intelligence be looked upon as "the degree of availability of one's experiences for the solution of his present problems and the anticipation of future ones."

Nobody can possibly quarrel with this statement. It judiciously shies away from making the degree of availability dependent always exclusively on innate factors; it leaves open more than one possible answer to the question of *how* the degree of availability has been attained in each individual case; and it does not qualify narrowly the term experience, which cannot be thought of without its situational, cultural, and emotional connotations.

There is nowadays a justified revolt against an overemphasis on the results of intelligence tests. But it is of historical significance that this overemphasis is related in no inconsiderable measure to an interesting semantic vagary, which came to identify I.Q. figures too closely with "psyche" and "mind." Thus the impression prevailed that "psychometry" was really a device intended to determine the status of the "psyche," that "mental" tests gave a valid clue about the condition of the tested person's "mind." This terminology has tended, at least temporarily, to narrow the far broader implications of "psyche" and "mind." "Mind" and "mental" certainly connote much more than mere cognition. "Mind" is a complex set of whole-functioning which, besides intelligence, includes conative and emotional processes, a background of experiences and their elaborations, speed and type of responsiveness, vigilance, and many other facets. The equation of mind and the response to any battery of intelligence testing represents an unwarranted semantic usurpation. As a matter of record, Binet never went so far as to make such universal claims for his tests, which were conceived primarily for the purpose of determining the degree of scholastic ability.

When it was recognized that low test performances are not invariably referable to defects in what Rapaport called "natural endowment," there was a search for factors other than a congenitally de-

terminated minus that could be held responsible for the poor results. As a consequence, the concept of pseudo-feble-mindedness was introduced. Grace Arthur enumerated some of the groups of persons whom she regarded as belonging in this classification:

1. Individuals with special disabilities that have been confused with poor general ability.

2. Individuals with delayed speech that extended far beyond the normal limits but did not prevent the development of nonverbal abilities.

3. Individuals who had severe early illness that delayed but did not prevent mental development.

4. Individuals with brain injury which occurred at birth or from later accident that interfered with some kind of intellectual activity but not with others.

5. Individuals with physical handicaps such as impaired vision, impaired hearing, etc., that interfere with academic learning and with success on some scales for measuring intelligence.

There are, however, a number of investigators who are opposed to the concept of pseudo-feble-mindedness. They feel that, regardless of etiology and of initial potentialities, a spade should be called a spade when at the time of inspection it has all the characteristics of a spade. Michal-Smith summed up this viewpoint by saying: "Some children are so emotionally disturbed that they appear to be mentally retarded. Because their behavior is so closely akin to that of the severely retarded, some authorities say that the two conditions cannot and should not be differentiated. They point out that the psychotic behavior of some of these children or the behavior which seems to be extreme frustration is also a consequence of mental retardation and to assume normal or superior intelligence is unrealistic." This is still a debatable point and something can be said in favor of either contention. A number of years ago, I suggested that we speak of "apparent" feble-mindedness in instances of the reduction of intellectual functioning by motor, sensory, or emotional impediments.

Whatever designation one may care to choose, the fact remains, and is acknowledged by every student of the problem, that varying degrees of lag in intellectual development may arise postnatally as acquired characteristics in children whose "natural endowment" is masked or prevented from coming to full fruition by deafness, blindness, or psychosis. Even though Grace Arthur did not include the latter category in her

tabulation, the effect of deprivation has been known for a long time. Thus, Tredgold in 1908 listed "isolation or sense deprivation" as one of 14 different types of what then was called "amentia." Farther back, in 1877, Ireland named "deprivation" as one of 12 principal causes of idiocy.

One need not, however, begin with extremes. Everyday experience shows that children, even though their test scores may be high, can be kept from utilizing the unquestionable existing ability in a competitive class room situation. The most radical injustice which a teacher can do to a child is the critical statement: "We know that Johnny has a good I.Q. He could do better if he only would." This is true, of course, in the sense that a greater desire to learn would produce better results in a child found intellectually capable of doing the required work. But the criticism, heard so often, omits one significant consideration. There must be something which makes a child incapable of wanting to learn.

Some children enter school after five or six years of exposure to parental coerciveness which includes imperative teaching of nursery rhymes, the alphabet, and simple arithmetical computation. Force is known to engender a negative attitude toward that which a child is forced to do. Forced feeding almost invariably results in problems of eating behavior. Coercive toilet training has been known to produce constipation and encopresis. A child whose first learning experiences have been made painful through coercion is apt to develop a strong aversion to learning. There are parents who continue their compulsive teachings beyond the time when the child has been entered in school. They "help" the child with his homework and all but do it for him. The result is that homework becomes distasteful to the child and besides, he has no opportunity to develop his own independent working habits so that he is at a disadvantage even when the parents finally (and reluctantly) decide to "leave him alone."

Cyrus had an I.Q. of 125. Yet, at 12 years of age, having repeated several terms, he still did poor work in the fourth grade. He was in good physical health and had no specific disabilities. His parents felt frankly disgraced by him. He considered himself dumb, worthless, hopelessly degenerate. When asked at the clinic to make three wishes he wished for a bicycle and for life on a farm rather than in the city. Then he hesitated a long time and finally wished: "No more blockbusters." He felt uncomfortable after he had said it, then sat up straight with visible

resolve and said with grim humor: "I should have said: No more atomic bombs." His parents, he blurted out, had always been standing over him, never giving him a minute of privacy when he did his homework. Since both parents were working, he was to wait until after dinner and then do the homework under their supervision. His engineer father and school teacher mother, having delivered themselves of inquiries about their son's classroom performances during the day, having deprived him of his dessert because of a poor mark, having admonished him harshly and reminded him how tired they were from the day's work, proceeded to post themselves behind him and to "watch." He was often so "scared" that he did not even open his books. This produced rebuke and eventually led to blows (the "blockbusters" or "atomic bombs"). Toward the end of the evening, everybody gave up. A child of superior intelligence had thus been deprived for years of making use of his good potentialities by two rejecting, punishing parents. Cyrus hated school and everything it stood for. He could have done better if he had wanted; but his insecurity, his frustrations, and his anxieties made him incapable of wanting. Thus, despite an I.Q. of 125, his actual performance was not better than that of a child of considerably lower intellectual endowment.

Sometimes not even intense eagerness to learn is rewarded by achievement. There are pupils so anxious for success that their very anxiety has an inhibiting effect on learning. These are usually obsessive children who, under the impact of excessive demands for precision and "goodness," have come to set extremely high standards for themselves. They do their work over and over again, never fully satisfied with its neatness and excellence. They must attain the highest possible marks. In spite of abundant preparation, they are excited and apprehensive before every test. As a result, they are slowed down by their preoccupations. Inability to finish the classroom assignments in the required time is the most frequent complaint which teachers make about these children.

Such instances, which are by no means unusual, indicate the impact which emotional distress may have on the ability to learn, even in children who, in a friendly, non-competitive relationship between themselves and tester, may achieve satisfactory psychometric ratings.

But, over and above this, there are constellations which begin to influence adversely the development of learning at so early an age and in so radical a manner that a major defect is manifested in any formal or informal test of cognitive performance. For all practical purposes,

the patients do not differ in this respect from children who are severely defective *a priori*. In fact, differential diagnosis may become an extremely difficult task in a number of individual cases and has occasionally given rise to a controversy reminiscent of the question: Which came first, the hen or the egg? How can you tell, so the question goes, whether the emotional impact has been superimposed on a child who was primarily oligophrenic or the apparent oligophrenia has been introduced to a child who, were it not for the emotional overlay, would not in any way have deviated from average or even above average intellectual development?

Systematic research in the past two decades has attempted to square itself with this problem. Goldfarb's studies have been especially thought-provoking. Goldfarb undertook several investigations of the fate of children who had spent approximately the first three years of life in institutions, prior to being transferred to foster home care. In the institutions, orphanages of the old variety, they had adequate nutritional and hygienic attention but lacked the psychological stimulation which comes from being picked up and fondled, from forming a continued relationship with any one adult. Goldfarb used as a control group children from the same social strata whose total life experience has been with foster families after a brief period with their own relatives.

Goldfarb observed the following results of deprivation:

1. Expressions of concept deficiency. The child had difficulty in learning songs, rhymes and stories, in grasping number concepts, in sizing up situations, in achieving time and space orientation, in recalling the past in a focused fashion and in anticipating the future.

2. Absence of normal inhibitory pattern. Overactivity and disorganization were the major symptoms. The children were enuretic and unmanageable and given to temper tantrums. They showed extreme curiosity regarding the environment, yet were unable to comprehend its meaning so that there was a constant unsatisfied drive to test and to try out.

3. Affect hunger. This showed itself in an indiscriminate and insatiable demand for attention and affection. The children "never had enough."

4. Emotional imperviousness and superficiality of relationship. The demand for affection did not significantly enrich the capacity to form ties. There was a shallow, easy-going response to change of foster home

or threatened removal from a home where the children had been fully accepted.

5. Absence of normal tensions and anxiety following acts of hostility, cruelty or unprovoked aggression. School failure was accepted complacently.

6. Social regression. The institution adolescents were inferior in social maturity to adolescents who had spent their infancy in foster homes.

Psychometrically, the institution children (mean I.Q. of 68.10) tested considerably lower than those of the control group (mean I.Q. of 96.38). They were also inferior in their vocabulary performances. In the Rorschach examination, they indicated inferiority in the degree of relatedness to the external world, in the strength of will to meet and reorganize the external world of experience, and in the maturational level of personality as expressed in imaginative and conceptual competence.

Goldfarb concluded that "there is a cumulative evidence that an extensive period of deprivation of babies in an infant institution is profoundly detrimental to their psychological growth. There is also evidence that pernicious effects of the early experience persist even in the face of careful placement in selected foster homes, casework supervision and, in some cases, psychiatric treatment. The extreme deprivation experience of the institution children has apparently resulted in a quasi-constitutional fixation on the most primitive levels of conceptual and emotional behavior."

During the past two decades, we have become acquainted with a circumscribed syndrome, now known by the name of early infantile autism, which shows itself in extreme withdrawal and obsessiveness beginning as early as in the first two years of life. These patients, whose condition probably represents the earliest possible form of schizophrenia, come of intelligent and vocationally successful parents who are in good economic circumstances and of homes in which every necessary provision has been made for material comfort. Nevertheless, we find almost invariably that the children have been brought up in emotional refrigerators in which there was extremely little fondling and cuddling, in which the infants had been treated more as coldly watched and preserved experiments than as human beings enveloped in the warmth of genuine parental affection. In some of these instances, the severe psychopathy could still be attenuated therapeutically.

Many of the autistic children are functional idiots when they are brought for examination at 3 or 4 years of age. They do not talk, do not respond to other people, have temper tantrums when they are interfered with, have peculiar stereotyped motions, and are not accessible to any kind of testing. Some remain so for the rest of their lives. Only the early history and the characteristic symptoms (withdrawal, retention of an intelligent physiognomy, better relation to objects than to people, obsessiveness) distinguish them from born idiots. For all practical purposes, they function on the level of absolute feeble-mindedness. Yet some of them, with permissiveness and affectionate stimulation, are able to make sufficient compromise with reality to reenter the world from which they had removed themselves so completely.

George O. was brought to our clinic at almost four years of age with the mother's request that we recommend an institution for her son. George appeared for all practical purposes as an idiotic child, mute, incontinent, biologically as helpless as a small infant. In the office, he stood in one place, swaying back and forth until he spotted a Seguin formboard. He lunged toward it and repeatedly and obsessively took out and put back the pieces with amazing dexterity. His mother, the wife of a successful surgeon who hardly ever gave himself the time to see her or George, looked ill-attired, sloppy, bedraggled, and resigned. Enough of a glimmer of spontaneity showed through her artificially maintained dullness to cause me to ask her when and why she had stopped being Agnes (her given name). This question produced a burst of tears and an almost explosive urge to talk about herself.

When she eventually rediscovered her identity and rekindled in herself an unexpected glow of warmth, she gave herself over to George, ministering to him as if he were her newborn baby. George began to thaw out, became more responsive, formed his first words, and developed adequate toilet habits. Improvement was slow but steady and gave to the mother a feeling of self-reliance which all but transformed her looks, her posture, her clothing, and her poise. George, now thirteen years old, achieved in his last test a Binet I.Q. of 95, which may or may not be fully representative of his endowment. He attends the seventh grade and does average work. He is still shy and a bit lonely but pleasant and communicative.

On a Sunday morning, thirteen years ago, a friend called me on the telephone and suggested that I come over to her house if I wanted to

see a most unusual child. When I arrived, I was led to the combined library and music room where, seemingly oblivious to everybody, a little boy read aloud from a copy of the *National Geographic Magazine*. Four-year-old Jay, slender, freckle-faced, topped by a crown of red curls, paid no attention to my greeting. As I listened, it became obvious that the words which he read had no semantic value to him. He jumped from one page to another, threw the magazine away, helped himself to the *Atlantic Monthly* in similar fashion, and then proceeded to pronounce the titles on the backs of shelved books. There were some German books on the shelves and Jay, who had no knowledge of German went through their titles unhesitatingly without any expression of strangeness. No verbal response could be elicited from him and any interference caused marked displeasure ranging from impatient dodges to full-fledged temper tantrums.

Jay's father, an accountant who in his spare time assisted my friend in stage settings for amateur theatricals, saw nothing unusual in the child's behavior. In fact, he looked on with considerable pride. He obediently, though reluctantly accepted my invitation to bring Jay to our clinic for study. He came with Jay once and since then has turned all further dealings with the clinic over to his wife. This proved to be helpful because she, aware of the problem and her own role in its development, was grateful for the opportunity to obtain psychiatric help for Jay and for herself.

Although Jay read mechanically everything that was shown to him and handled the form boards adroitly, his psychometric rating was extremely low, both on the Binet-Simon Scale and in the Vineland Social Maturity Test. In earlier days, his problem might have been dismissed with the diagnostic cliché of *idiot savant*, a concept based on the observation that there are persons who, unintelligent in all other respects, excel in one particular limited sphere.

Jay and George, who—as events proved—were well endowed intellectually, were not capable of using their potentialities in a manner meaningful to others so long as they remained behind the barricades of their emotional isolation. It is typical of their illness that the disability to form effective ties and the resultant lack of responsiveness shut off the avenues of communication which are needed for psychometric evaluation. I doubt whether Jay's rich resources could ever have been tapped if he had been allowed to bog down in his psychotic withdrawal. It is quite possible that George, if placed in an institution at an early age,

might have surrendered unconditionally to his desire for impenetrable aloneness and thus never have risen above the I.Q. level of an idiot or imbecile. As a matter of fact, this is unfortunately what does happen to the majority of autistic children, either because they have been abandoned to vegetation in an impersonal custodial setting, or because they have been brought for treatment at a time when their imperviousness has become too firmly entrenched, or because therapy has been sabotaged by emotionally refrigerated parents incapable of defrosting.

We thus have a continuum of emotional impacts on intellectual functioning which range all the way from occasional and temporary pre-occupations in the classroom to the variously disturbed personality patterns of the institutional or the autistic child. Even at that, it would be simple to make life a bit too easy for oneself by assuming an uncomplicated cause and effect relationship. It may well be that genetic, cultural, and constitutional elements should not be left out of the calculation. Why is it that a few markedly autistic children have emerged sufficiently to participate, at least tenuously, in the life of the community, while the majority have remained unresponsive and, for all practical purposes, do not differ from the severely defective residents of a school for the feeble-minded? A follow-up study has shown that the difference in outcome cannot be correlated too well with the supply, type, intensity, or duration of psychotherapy. One must fall back on the assumption that there are degrees not only of the intellectual potential but also of the ability to establish affective contacts which evidently is also a significant part of the "natural endowment."

Another perplexity has arisen from the observation that innately retarded children present behavior patterns which in their bizarreness resemble some of the symptoms seen in autistic children. This has caused some people to apply the epithet "autistic" to any idiotic or imbecile child who behaves peculiarly, with implications injurious to the peace of mind of the parents and the recommendation of intensive, extensive, and expensive psychotherapy for the parents as well as the patient.

Somewhere along the line, the term "emotional block" was coined to indicate the masking of innate intellectual assets by psychotic or near-psychotic disturbances. Though this may not be the best possible designation, there can be no quarrel with it so long as it is used as a clear and unmistakable reference to such masking in properly diagnosed patients.

Unfortunately, the misuse of this term and the practices growing

out of its misuse have been the source of a great deal of mischief in the past few years. It stems from the recognition of the unquestionable fact that severe emotional disorder can lead to poor intellectual functioning on the part of children who have come into the world with average or better than average intellectual endowment. This is especially true of childhood schizophrenia and early infantile autism. The increasing knowledge of these conditions marks a major advance in the realm of modern psychiatry. Many of the children so affected have been looked upon previously as congenitally and irreversibly feeble-minded and placed in institutions where, yielding to their pathological withdrawal tendencies, they soon assumed the external characteristics of their genuinely defective fellow inmates. The establishment of helpful criteria has made possible a clear distinction in most instances, though on occasion the diagnosis still confronts one with considerable difficulty. Weygandt knew this as far back as in 1913 when, in his classical monograph on idiocy and imbecility, he called attention to the odd behavior of some of the patients, a number of whom may indeed have been autistic rather than innately defective.

The caution required in arriving at a correct evaluation has for the most part led to a refinement of clinical investigation. However, a small number of professional persons has gone to the extreme of ascribing primary emotional etiology to children who, by all standards, were, are and will remain defective in the sense of an inherent minus. It has come to a point when some parents' advisers have become reluctant to acknowledge the fact of innate intellectual retardation as such and see in any malfunctioning child evidences of the working of an "emotional block." Any bit of odd behavior of an imbecile or idiotic child, such as waving the hands, manipulating a string, or grimacing, is viewed and offered as "proof." Parents are told that their children, far from being inherently defective, suffer from the results of an "emotional block," which should be unblocked by intensive psychotherapy of the child and both parents. This not only calls for backbreaking financial expenditure but has convinced many parents that it was their attitudinal outlook and resulting relationship with the child which brought about his failure to develop. There is no excuse for thus adding insult to injury. Many patients are finally taken to someone who sets the pauperized, guilt-laden, exasperated parents straight after months or years of this sort of therapy."

In view of such experiences, which are less sporadic than one should like to believe, it cannot be emphasized strongly enough that there is a serious obligation to use adequate diagnostic criteria. It is time that we become aware of and counteract, the damage done by a few who harass parents with the misapplied cliché of the "emotional block." The fact that intelligence tests and developmental tests do not always tell the whole story should not make one overlook altogether their significance as a diagnostic aid. If a few have gone overboard in overrating the tests, this is no reason why they should be denied any degree of validity and replaced by the vague, scientifically untenable, and often outright harmful fantasy of the "emotional block."

Many exciting things have happened in the area of mental deficiency during the past quarter century. New, hitherto unknown syndromes have been described and some insight into their etiology has been gained. One need only mention the examples of gargoylism, phenylketonuria, and the glycogen storage diseases. One need only to remember that Heller's disease, which used to be regarded as an early form of schizophrenia, has been found, through biopsy studies of brain tissue, to be an eminently organic degenerative disease. And one may add to this the appreciation of emotional factors, such as psychological deprivation in the group studied by Goldfarb and the emotional refrigeration of autistic children. The last word, however, has not been spoken, and much further research will be required to gain greater certainty. Such research, fortunately, is under way.

9. A Case of Extreme Isolation *

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The girl in question, who has been given the pseudonym Isabelle, was discovered in November, 1938. . . . At the time she was found she was approximately six and a half years of age. . . . She was

* Reprinted as a short excerpt from "Final Note on a Case of Extreme Isolation," *The American Journal of Sociology*, 57: 432-437, October 1947, with the permission of the University of Chicago Press and Kingsley Davis.

an illegitimate child and had been kept in seclusion for that reason. Her mother was a deaf-mute, having become so at the age of two, and it appears that she and Isabelle had spent most of their time together in a dark room shut off from the rest of the mother's family. As a result Isabelle had no chance to develop speech; when she communicated with her mother, it was by means of gestures. Lack of sunshine and inadequacy of diet had caused Isabelle to become rachitic. Her legs in particular were affected; they "were so bowed that as she stood erect the soles of her shoes came nearly flat together, and she got about with a skittering gait." Her behavior toward strangers, especially men, was almost that of a wild animal, manifesting much fear and hostility. In lieu of speech she made only a strange croaking sound. In many ways she acted like an infant. "She was apparently utterly unaware of relationships of any kind. When presented with a ball for the first time, she held it in the palm of her hand, then reached out and stroked my face with it. Such behavior is comparable to that of a child of six months." At first it was even hard to tell whether or not she could hear, so unused were her senses. Many of her actions resembled those of deaf children.

It is small wonder that, once it was established that she could hear, specialists working with her believed her to be severely mentally retarded. Even on nonverbal tests her performance was so low as to promise little for the future. Her first score on the Stanford-Binet was 19 months, practically at the zero point of the scale. On the Vineland Social Maturity Scale her first score was 39, representing an age level of two and a half years. "The general impression was that she was wholly uneducable and that any attempt to teach her to speak, after so long a period of silence, would meet with failure."

In spite of this interpretation, the individuals in charge of Isabelle launched a systematic and skillful program of training. It seemed hopeless at first. The approach had to be through pantomime and dramatization, suitable to an infant. It required one week of intensive effort before she even made her first attempt at vocalization. Gradually she began to respond, however, and, after the first hurdles had at last been overcome, a curious thing happened. She went through the usual stages of learning characteristic of the years from one to six not only in proper succession but far more rapidly than normal. In a little over two months after her first vocalization she was putting sentences together. Nine

months after that she could identify words and sentences on the printed page, could write well, could add to ten, and could retell a story after hearing it. Seven months beyond this point she had a vocabulary of 1,500-2,000 words and was asking complicated questions. Starting from an educational level of between one and three years (depending on what aspect one considers) she had reached a normal level by the time she was eight and a half years old. In short, she covered in two years the stages of learning that ordinarily require six. Or, to put it another way, her I.Q. trebled in a year and a half. The speed with which she reached the normal level of mental development seems analogous to the recovery of body weight in a growing child after an illness, the recovery being achieved by an extra fast rate of growth for a period after the illness until normal weight for the given age is again attained.

When the writer saw Isabelle a year and a half after her discovery, she gave him the impression of being a very bright, cheerful, energetic little girl. She spoke well, walked and ran without trouble, and sang with gusto and accuracy. Today she is over fourteen years old and has passed the sixth grade in a public school. Her teachers say that she participates in all school activities as normally as other children. Though older than her classmates, she has fortunately not physically matured too far beyond their level.

10. Prevalence of Mental Retardates *

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How many children with retarded mental development are there? What questions should we ask ourselves about the various studies of its prevalence? J. E. Wallace Wallin, who has spent a lifetime of pioneering in special education, clinical psychology, and

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mental hygiene, presents his thinking on these matters. In addition, a table collated by Eugene W. Brockopp * summarizes the research on the prevalence of mental retardation from 1894 to 1958.

In view of recurrent statements that from 4-5,000,000 school children are "mentally retarded," I have been frequently asked on my travels whether "such estimates are not gross exaggerations put forth for propaganda purposes?" What are the facts?

The incontestable fact is that we have no exact knowledge of the number of "mentally retarded" children throughout the nation for at least two very patent reasons. First, no nation-wide nor any satisfactory state-wide survey of such children ever has been made. The statistics widely promulgated are mere estimates from local surveys, which usually are based on the distribution of the I.Q.'s of school children. Definitions of mental retardation or mental deficiency so derived are based on purely arbitrary criteria.

In the second place, the concept of mental retardation or mental deficiency is not in terms of a unitary entity any more than the concept of epilepsy or of a headache. No sharp line of cleavage exists between mental normality and mental sub-normality. It is obvious that the prevalence of such a complex is a matter of definition. The concept of "mental retardation," as now usually employed, is particularly nebulous, vague, and ill-defined. The current classifications are far less exact than the older categories and will lead to confusion rather than clarification in our thinking.

But what do the most reliable surveys show? Two of the more careful ones are based on certain areas of England and Wales. The first was made by a committee of the British Royal Commission on the Feeble-Minded and published in 1904. It yielded an estimate of 4.6 deficient per 1,000 of the general population. The second, made in similar areas in 1924 by the British Mental Deficiency Committee, yielded about twice as many, or eight per 1,000. The doubling of the estimate in 1924 is probably due to the use of standardized mental tests in the latter survey

* Reprinted by permission of Eugene W. Brockopp from "The Significance of Selected Variables on the Prevalence of Suspected Mental Retardates in the Public Schools of Indiana," unpublished doctoral dissertation, Indiana University, 1958.

rather than to an actual doubling of the incidence of the condition.¹

As a result of annual surveys during a seven-year period, 1914-1921, in the St. Louis public-school system, the writer concluded that perceptibly less than one per cent of the enrollees were mentally deficient in the socio-economic sense. One of the conspicuous findings was that generalized estimates for a large school system would not apply to the units of that system. Thus, about four times as many deficient were found in the socio-economic inferior areas as in the superior areas of that city.² Much later, in 1949, Frances A. Mullen announced similar findings for Chicago: 65% of children recommended for ungraded classes came from 11 areas of the city below par socio-economically.³ Of course, the number of educational retardates in need of special educational facilities for various reasons was far greater than the number of socio-economic mental deficient.

The chief interest today centers in the prevalence of the children of very limited ability, often arbitrarily designated "trainables." How large is the burden of care and training of these children? A few studies have been made of that problem.

The author, after an examination of 3,644 children between 1921 and 1926 in scores of public-school systems in Ohio, found that the ratio of children with I.Q.'s between 35 and 49 varied in different systems between 1.5 and two per 1,000 of the children enrolled. The findings were based on the actual referrals, most of them attending school.⁴ Merrill, in the standardization of the Terman-Merrill Stanford-Binet, found that the ratio of I.Q.'s between 30 and 49 was 2.3 per 1,000.⁵

Two special committee investigations have been made recently to determine the number of children of very limited ability, one in five Illinois communities and the other in three Michigan counties. In Illinois, 2.3 per 1,000 children of school age (6-18) were classified as

¹ J. E. W. Wallin, *Children with Mental and Physical Handicaps* (Prentice-Hall, 1949), p. 37.

² J. E. W. Wallin, *Mental Hygiene*, 4: 103-136, January 1920; *Journal of Delinquency*, 8: 170-175, May-July, 1928; *The Education of Handicapped Children* (Houghton Mifflin, 1924), pp. 143-145; and *Education of Mentally Handicapped Children* (Harper, 1955), p. 130.

³ F. A. Mullen and M. M. Nee, *American Journal of Mental Deficiency*, 777-790, April 1952.

⁴ J. E. W. Wallin, *Journal of Applied Psychology*, 19: 21-27, February 1930.

⁵ M. A. Merrill, *Journal of Educational Psychology*, 29: 641-651, December 1938.

"trainable" (I.Q.'s 20-49), including those at large and those in public and private residential institutions.⁶ The corresponding figure for Michigan, based on children 5 to 19 with I.Q.'s from 20 to 49, was 3.3. It was found in Michigan that 1.5 per 1,000 would not attend special classes. The conclusions reached were that a community of less than 20,000 should not plan to organize a class and that "the class load could be increased to around 15 such children, provided the new admissions do not present discipline problems."⁷

In my extensive visits to privately supported special schools or classes for the so-called trainables since 1953, I have observed some children to be as capable as those regularly admitted to public-school special classes and a limited number who were of normal mentality, with I.Q.'s in the 90's. Some were purely custodial cases, with I.Q.'s as low as 18 or undeterminable.

11. Goals for the Mentally Retarded *

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What are the necessary goals of a program for the mentally retarded? In the past, many school programs have been initiated without realistic concern for the educational needs of children

* Reprinted and edited from *The Training School Bulletin*, 53: 248-256, January 1957, with the permission of Harold A. Delp, the American Association on Mental Deficiency, and the Vineland Training School.

⁶ V. L. Nickell, "Report on Study Projects for Trainable Mentally Handicapped Children" (Springfield, Ill.: Superintendent of Public Instruction, 1954), p. 11; and H. Goldstein, "Report Number Two on Study Projects for Trainable Mentally Handicapped Children" (Springfield, Ill.: Superintendent of Public Instruction, 1956), p. 1.

⁷ R. J. Guenther, "Interim Report, The Michigan Demonstration Research Project for the Severely Mentally Retarded" (Board of Trustees, Michigan Demonstration Research Project for the Severely Mentally Retarded, October 1955), pp. 22-24; and "Final Report, The Michigan Demonstration Research Project for the Severely Mentally Retarded" (State Advisory Board for Michigan Demonstration Research Project for the Severely Mentally Retarded, August 1956), p. 22.

with retarded mental development. Harold A. Delp gives careful consideration to the goals of such programs from the point of view of the child as well as that of community institutions.

Every child deserves an opportunity to achieve his maximum, well-rounded growth and development. This is more or less accepted by all Americans, as a basic philosophy. In order to achieve this maximum growth and development, however, training of all kinds must be adapted to the particular needs and abilities of the individual child. In the majority of ways, retarded children are similar to normal children. There are the same kinds of differences among retarded children as there are among the normal. The goals for the retarded, in general, are the same as for all children. Some aspects, nevertheless, are desirable for all, but become necessities for the best interests of the mentally handicapped. To many parents and teachers, working with a retarded child merely means that he must be given less material at a slower rate of speed and over a longer period of time. Actually, in addition to these factors, the kinds of material to be used in training the retarded child are somewhat different, and the methods of training must be modified.

Dr. Elise Martens, of the U. S. Office of Education, has quoted a threefold challenge to parents, teachers, and others working with the mentally retarded: (1) to see that all possible obstacles to each child's maximum growth are removed, (2) to see that every child has a chance to reach the heights of achievement, and (3) to see that no child is forced into channels of activity unsuited to his particular type and level of ability. Some of the goals for the retarded child might be expanded as follows:

1. *Correct Diagnosis.* Probably the first goal for all mentally retarded children is an adequate, correct diagnosis of the entire problem. The type and level of the retardation must be accurately determined. Frequently, other conditions are superficially diagnosed as mental retardation. There must be measures of the physical, social and emotional development and the relationship of these factors to the mental level, for the particular child. Adequate prognosis must be early established concerning the child's future total development. This requires the assistance of various kinds of professional help in which everyone, especially the parent, has confidence.

2. *Understanding.* The second goal, and one rather difficult for

some persons to comprehend, is for everyone to have a complete understanding of the retarded child, especially as it pertains to the type and level of retardation. Almost all characteristics differ in degree from individual to individual. These actual quantity differences must be fully understood. In addition, the qualitative effect of these differences needs consideration. The retarded child can think—but his thinking is at a much lower level. Because of this, some things must be taught in a different manner. Parents and teachers must understand fully the need for concrete training and for always giving training in its simplest elements. Consideration must be given all other characteristics of the retarded, such as short attention span and the lack of ability to make generalizations. Everyone must understand that the 10-year-old who has obtained a test mental age equal to five years is NOT like the average five-year-old child. He will show certain different ways of approaching and solving problems. He will differ in many of his ideas and concepts. As a final point, understanding of the mentally retarded must include the realization that true retardation is not correctable. Mental test scores may be in error. However, if a correct diagnosis is obtained and the retardation is an actual mental factor, the child will always be mentally below the average group. Complete understanding, of course, includes knowledge of conditions which may color a diagnosis and in some cases, lead to a wrong conclusion.

3. *Acceptance.* The recognition that the child is retarded is a major problem for the family. The third goal for the child, and one of utmost importance, is the complete acceptance of each child as he is—by parents, family, and community. Pearl Buck's recent story of her daughter illustrates the difficulty. At times there is superficial understanding of the problem, but the acceptance of it in everyday life is lacking. The fact of "reality" must be accepted by all. The old saying, "If at first you don't succeed, try, try, again," is not entirely correct and must be used with caution. Few one-legged men will ever be able to run a foot race with normal persons. The retarded will have certain very real limitations in various areas. He and everyone working with him must learn to accept them. Many persons, however, emphasize the limitations rather than the capabilities of the individual. The true facts must be discovered and their implications understood and accepted. Only after this acceptance can the child's training have the best chance for success.

4. *Maturation.* As another goal, we would ask for adequate oppor-

tunity for maturation. In general, maturation, or total growth and development, occurs mainly through the mere passing of time. For the retarded child, most persons will admit that this growth will be much slower than normal. However, many do not understand the part opportunity plays. The parents of retarded children often try too hard to protect the child from rebuffs and failures and so prevent him from having many of the experiences necessary to this maturity. In giving the child this opportunity for development, parents and teachers must give him a chance for more actual experiences, but in a more simple, gradual, and specific sequence.

5. *Physical defects and well-being.* We should make every attempt to obtain the removal of all possible physical defects and to have the maximum of physical well-being for the mentally retarded child. The handicap of mental retardation is one for which it is difficult to compensate. Every other defect becomes that much more noticeable and so makes the child less acceptable by other people. Most of the physical defects are more obvious than the retardation. The removal of physical defects also makes it probable that the child will be better able to make the most of his training. If a retarded child is also hard of hearing, he will have a more difficult time of learning. Retarded children, as a group, are more susceptible to disease. For this reason, the child should be kept in the best possible physical condition. A healthy child is better able to cope with daily problems.

6. *Habits of living.* Another goal for the retarded child is the development of desirable and healthful habits of living. To many people this area is the most important one. If the child has adequate habits of living, he should have better results in everyday contacts with others. Because the retarded child is lacking in ability to think and to generalize, it is necessary to develop most behavior as a habit. Cleanliness and self-care habits are essential. Habits of accuracy, persistency, and efficiency are imperative, considering the short attention span and other characteristics. Courtesy and cooperation will help the child to get along with people better than obstreperousness. Talking does not produce results with the retarded, so traits of moral standards such as honesty, truthfulness, and the like must be developed through habit formation for these children.

7. *Social adjustment.* We should like for the mentally retarded child to gain the best possible social adjustment. The child must learn

where and how he can best fit into groups of people. He must learn to minimize comments by others about himself. This is an extremely difficult, but necessary, factor. He must also learn how to show up the best in a group—best over a period of time. We should help him to accept society as it is, and to find his best place in it. This includes adjustment of his wants to the rights of others.

8. *Personality.* The retarded child must acquire the most adequate personality. Personality, of course, includes many of the factors already discussed. It also includes emotional factors. The retarded is more apt to encounter conflict and frustration. Every attempt should be made to keep these at a minimum. Parents and family should help the child build tolerance for such problems. In so many cases, the family, as well as others, tend toward extremes. People are either too severe or too lenient. Feelings of independence and responsibility should be obtained gradually in proportion to the child's total development. Because of frequent failures and inability to do many things, feelings of security and personal worth are difficult to obtain. They require special effort on the part of everyone.

9. *Academic fundamentals.* Another important goal for the mentally retarded is that each child learns those fundamentals of schooling he will need for use in life. Neither parents nor teachers should expect him to learn the same materials taught normal children. He should learn reading, writing, spelling, arithmetic, etc., which would be useful in making job applications, in carrying out simple job duties, filling orders, keeping personal finances, reading everyday signs and the like. All of this training must be consistent with his mental level. The less the child is retarded, the more he can be taught of an academic nature. All training must be given in such a manner that it will produce a satisfaction of achievement. Work must be meaningful to the child, within his capacity to achieve, and such that a sense of accomplishment results.

10. *Information.* The development of a fund of useful, workable information is important for every person. However, in most education, much information given daily will never be used. For the retarded child this must not happen. All information not necessary should be eliminated from the training. To be adequate, all information given must be definitely related to the child's experiences. It must include not only information for daily use in the usual meaning, but it must also include factors concerning citizenship. Within the limits set by the retardation, the

child must develop information on living in the home, on a job, and in the community.

11. *Day-to-day standards.* The establishment of day-to-day standards suitable to the child's mental level should be another goal for the retarded child. Again the frequency of extremes on the part of parents and teacher is common. Standards must be neither too high *nor* too low, but consistent with daily progress. It is difficult to determine adequate measures. The retarded child cannot comprehend the usual training ideas of adults. For the normal child, it is possible in many cases to set standards based on future needs. Such talk of the future is too abstract for the retarded. He must know what is expected of him at the present moment, and by habit, skill, and information, he must develop actions which will care for future situations when they arise.

12. *Self-care and self-support.* Consistent with the amount of retardation, we want the maximum of self-care for the mentally retarded. For some this may approach partial or even full self-support as an adult. Such training must include doing his share of activities in the home, or institution, or on a job. The retarded must learn good attitudes toward work, his employer, or supervisor. He must develop habits of industry that will make him a success at any job within his capacity. He must be equipped as far as possible with specific skills of a work type, whether they are used on a job for support or in helping in and around the home or institution. He must take his place in whatever situation he happens to be. Many industries have jobs which retarded persons can do. In most of these jobs such persons are even happier than more normal persons, because they are not bothered by monotony. However, they must learn to accept jobs they can do successfully, and not attempt work entirely beyond their abilities.

13. *Adequate leisure-time activities.* An important goal for retarded children is the provision for simple, wholesome, leisure-time activities. The mentally retarded has few original ideas. Hence, he must be given specific training if he is to develop an interest in recreation. On the school ground or in the home such children are often at a loss for something to do. It is because of this that a number are easily led into mischief. The major answer is to teach them simple games which do not require mental action. If possible, they can develop simple hobbies which in many cases can be continued through life. Every child, whether retarded or normal, should be given a chance to learn to appreciate

music and art to the greatest extent possible. Each should be given a chance for playing an instrument, singing, painting, etc., if he seems to have any particular interest or talent. Too often we overlook such training on an interest basis. Many normal persons like to paint even though they have only moderate talent. They do it for personal pleasure. We must look more for this aspect in providing the retarded with adequate leisure activity.

14. *Supervision and guidance.* The goal of supervision and guidance for the retarded child must include help for the child during the training period and also throughout his life to whatever extent is necessary. The retarded child is more apt to make mistakes in all areas of living—because he has lower comprehension and because he is apt to be easily led by others. He must always know to whom he can turn when in doubt. Someone must always be around to see that nothing out of place happens. Supervision and guidance must be available to those working with the mentally retarded. Parents, employers and others usually need frequent help and advice. In general, they do not have the technical knowledge necessary. In addition, their own personal problems and emotions are usually involved; it is difficult for them to be objective with the retarded child. Thus, outside guidance is of great assistance to the retarded child, directly, and through others working with him.

15. *Adequate placement.* As the final goal on the list, the retarded child must have the most adequate placement for the best advantage of all concerned. In some cases the question is considered as though the rest of the family did not matter. Actually, in order for the retarded child to develop to his best level, the problem must be solved by consideration of everyone involved with the child. In many cases the family could make adequate adjustment, but the community cannot. In this case the problem becomes one for general study. The question of placement covers both care and training. All factors and persons must be taken into account in deciding the best placement for care—in the home, in a boarding home, or in a public or private institution. The permanency of such an arrangement is usually open to question. In terms of training, the possibilities usually include home training only, visiting teacher, special class in the public schools, regular classes in school, or public institutional schools. Parents must not let their personal feelings or love for the child keep them from making decisions that would actually be best for the retarded child and for the rest of the family as well.

To approach the problem from a different direction and somewhat to reword the above, the goals for the mentally retarded are given in terms of some of the more common groups in society. In each case, consideration is given to the goals the agency has for the child and the goals for itself, in order that it can give the best help to and for the child.

1. *Home.* A major goal for the home is the acceptance of the child as he is by all members of the family. As far as possible, a feeling of stigma, guilt, and the like should be eliminated. The retarded child should be considered more as a "mental cripple." In this sense he is similar to another child who is crippled physically, or has a defect of eyes or ears. The child himself should develop a rational acceptance of the facts.

The home must help the child learn to live with his handicap and to attain the greatest degree of happiness and success for himself. The home must be such that the child will gain a feeling of belonging to the family, or gain a real working part of it.

The home wants the child to develop his maximum of self-care. This is necessary for the best interests of the child and the family. His greater independence will make the child happier and will relieve the family of much tension as well as actual work. If possible for the child's mental level, some degree of self-support as an adult should be anticipated. It may be only to the extent of work in and around the home or the family business, but this would relieve others in the family from those tasks. In addition to self-care in the physical sense, the home should assist the child in building appropriate attitudes toward himself and the world in general.

2. *Educational.* The educational agencies should work for facilities, trained teachers, and other professional personnel adequate for diagnosis and for teaching the mentally retarded child. They must educate the child at the level of his abilities and by the methods fitted to his needs. The child himself must be the standard, rather than forcing him to make the most of what he can do, and to minimize what he cannot do. Future usefulness and need should be the basis of training materials and methods.

3. *Medical.* An early and adequate diagnosis is the prime consideration. Medical personnel set as a goal the correction of all possible physical defects in order that the retarded child will have the best chance

for good adjustment in all areas. Because the child is more susceptible to illnesses, they would desire for the child better health supervision, directly and through help to the home. More retarded children have poor speech, poor motor coordination, and the like. The medical agency, in cooperation with other appropriate agencies, should strive for the maximum improvement in all of these fields.

4. *Social service.* Social agencies should set as a goal the maximum assistance to the individual and his family. This includes assistance with proper placement of the retarded child for care and training, and for the best interests of the child, family, and community. Prevention of social problems is another important objective. This includes development of the child for the maximum of self-care, and the point of partial or full support as an adult, if possible. It would also include guidance and supervision of the child, family, and community throughout the child's life.

5. *Community.* The major goal of the community probably would be to have available for all concerned the most adequate facilities in the areas of education, health, vocation, and recreation. All of these should be available at levels suitable to the child's needs. The community would want the retarded child trained as a participating member of the community—at the individual's level of performance. This would include sufficient training and guidance to see that the retarded person is not readily led into radical attitudes and behaviors, that he does not misinterpret community endeavors, but that he does take part for the good of the community as best he can.

Another very important goal for the community is the education of the community itself as to proper attitudes toward the retarded and his family and the proper demands to be placed on the retarded person. Everyone in the community must be trained to develop adequate behavior towards the handicapped. Jobs must be made available at the person's level. The community must help the individual to give satisfactory service on the job and to be happy in doing it.

6. *Institution.* If the retarded child is placed in an institution, the goals there are very similar. The institution would desire that the retarded child have the maximum of self-care and help for others. It would be advantageous to have facilities to develop social, educational, and vocational skills to the best of the child's ability, for use in the institution or for use in the community, if he should return there. The insti-

tution would hope for the best care of the individual, physically and otherwise.

In general, the institution desires for the retarded individual a satisfying, happy life in living with other people, including physical, social, emotional, and work adjustment up to the individual's maximum possibilities.

12. Current Trends and Practices in the Education of the Mentally Retarded *

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Earlier readings in this chapter have discussed the incidence and the diagnosis of retarded mental development as well as the general goals for the intellectually handicapped child. We turn now to the area of education: What types of school programs have been developed for children with varying degrees of retardation? What factors should be considered in curriculum development? Should the child with retarded mental development be educated in a special school or in a special class? The following selection presents an overview of practices developed for the education of the mentally retarded.

The education of the mentally retarded which was once considered the responsibility of the home or the institution is now generally recognized as a function of the public school system. Compulsory education laws have tended to bring into the schools children who previously would have been regarded as unfit and unable to profit from a public school education.

Studies have shown that while many mentally retarded children

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are unable to profit from the program offered to the normal child, they are able to benefit from a program adapted to their abilities and developmental patterns. It has been estimated that 1.5 to 2 per cent of the general population will fall into the category of educable mentally retarded and an additional 0.3 to 0.5 per cent will be classified as severely retarded. The educable mentally retarded child is generally defined as one who is potentially socially, economically and personally competent, while the severely retarded is considered as trainable but unable to profit from academic experiences. It has been recognized that the mentally retarded children cannot learn as much or as fast as the normal children and that an attempt must be made to offer them the experiences most essential to equip them to become contributing members of our society.

It has been shown by numerous studies that with appropriate education and guidance the mentally retarded have been able to achieve greater economic independence, to become more socially competent, to deal more adequately with personal problems and to develop more wholesome activities and interests leading to a fuller life. Providing an education that will enable the mentally retarded person to become partially or totally independent is a better investment for society than life-long care in an institution or home.

To facilitate the establishment of special programs for the mentally retarded all forty eight states have passed legislation providing for special classes and forty six states have provided some form of financial reimbursement.

Initiating new services into a school program requires considerable study to become acquainted with the research and the results of experimentation with different programs. A survey of the literature for the past twelve years reveals certain trends and practices that may prove helpful to the administrator who is considering a special education program. Some practices meet with widespread agreement; others are controversial. Where controversy exists, an attempt will be made to present the various viewpoints.

At present there seems to be no conclusive evidence that any one program is best for the mentally retarded. Most of the programs described in the literature fall into three common types of organization: the special room, the consultant service and the regular grade.

The program which seems most adequate for the larger school sys-

tem is that of the homogeneous special class which has been grouped in some way for more efficient instruction. The class is generally located in a regular school where pupils are given many opportunities to participate in the activities of the school. The classes are generally limited in size from twelve to eighteen pupils per teacher.

Organization of a complete program, according to Kirk and Johnson¹ should include the following groups:

(a) The pre-school class for children under age six with mental ages between two and four. The purpose of the pre-school class is to develop mental and social abilities during the formative years.

(b) The primary class for children whose ages are six to nine or ten, with mental ages of three to six and a half. The purpose of the primary group is to continue social and mental development and to provide readiness activities.

(c) The intermediate class should consist of children of ages ten, eleven, twelve and possibly thirteen, depending upon their mental and social abilities. Mental ages will range from six through eight or nine years. In this group emphasis is placed upon social growth and the development of skills.

(d) The secondary class for ages thirteen through sixteen or eighteen with mental ages of eight to twelve. The program is designed to teach social living with the emphasis on home, vocational and social efficiency.

(e) The post-school period is to provide the guidance and supervision necessary to the individual's adjustment to society.

While many schools have organized classes to accommodate the different age levels, few report the complete program suggested above.

The special school for the purpose of handling all retarded children in one building is becoming obsolete. The reasons are obvious when we consider the pupil's need for participation in activities with non-handicapped children.

The ungraded special class in which all ages from six to sixteen are enrolled may be the only solution possible in the smaller school system where there are not enough pupils to group chronologically. The teacher in this situation will usually find it advisable to group the pupils within the class.

¹ Samuel Kirk and Orville Johnson, *Educating the Retarded Child* (Riverside Press, 1951), p. 218.

Ellsworth² and Melcher³ describe county coöperative plans for communities too small to support separate programs. This arrangement has the advantage of providing more efficient services by serving a larger area.

Some systems report success with the consultant program in which a trained person may be employed who will act as a consultant to regular classroom teachers who may have mentally retarded children in their classes. The consultant is responsible for helping the classroom teacher set up an educational program for the retarded pupil and suggesting materials and methods to facilitate his learning.

Other schools are attempting to make adjustments to accommodate the mentally retarded pupils in the regular classroom. This program may operate in a number of ways. Retarded pupils may be assigned to a special teacher for part of the day and then returned to regular classes for the remainder of the time, or the pupil may be assigned to a regular teacher who is interested in his problems with the size of the class reduced to allow time for more individual help. The retarded children are sometimes placed in a group of educationally retarded children or others who are not adjusting to their school situations and are given remedial help and individual attention.

Within each type of organization are found variations to meet local situations. An evaluation of the different plans cannot be attempted without considering the many factors that enter into the organization and administration of the programs.

Considerable controversy has arisen over the problem of segregated classes versus regular classes for the mentally retarded. Many of the arguments are based upon the social and psychological effects of segregation and are generally the result of personal opinion and observation rather than research. At the 1946 convention of the Council for Exceptional Children the question of segregation was the subject of a panel discussion. While none of the panel members offered any supporting evidence other than personal opinion and observation, Shattuck⁴ reports that the general opinion of the group was that it is best

² Sheridan Ellsworth, "Every School Can Have Specialized Services Through the Intermediate Unit," *National Education Association Journal*, 45: 177, March 1956.

³ John W. Melcher and K. R. Blessing, "Special Education for Rural Retarded Youth," *Exceptional Children*, 28: 207-210, February 1957.

⁴ Marquis Shattuck, "Segregation Versus Non-Segregation of Exceptional Children," *Journal of Exceptional Children*, 12: 235-240, May 1946.

not to segregate an individual if he can receive as good or better training in a normal group even though it may be necessary to give special help. The exception is encountered when the detriment to the interests of the group outweighs the benefit derived by the individual from his association with the regular group.

Studies to determine the social effects of placement for the mentally retarded have been conducted by Johnson⁵, and Johnson and Kirk.⁶ Johnson, in his study of the status of mentally retarded pupils in a regular class, concluded that the mentally retarded pupils are isolated and rejected and that social segregation is quite complete. In the follow-up study by Johnson and Kirk they sought to determine whether the same pattern of isolation and rejection would be present in a progressive school where social development was emphasized. The results of the study showed that the pattern was very similar to the first study.

Johnson reports that studies comparing school achievement and social development of special-class mentally-retarded pupils with those in regular classes have been inconclusive. He states that while there is agreement between those who advocate segregation and those who oppose it that, in order for the child to make a satisfactory adjustment, the school environment must be adjusted to the child's physical and mental limitations. There is disagreement on how to carry out such a program.

Mullen⁷ describes a three year study now being conducted in the Chicago Public Schools with one of its purposes that of studying the effectiveness of special class organization. A comparison of the progress of the educable mentally retarded pupils in special classes with an equated group who remain in regular classes is expected to provide further information on the subject of class organization for the retarded.

Arguments offered in favor of special classes are:

(a) They serve both the needs and the abilities by offering a more functional curriculum.

(b) The special class teacher is trained to understand the problems of the exceptional child.

⁵G. Orville Johnson, "A Study of Social Position of Mentally Handicapped Children in the Regular Grades," *American Journal of Mental Deficiency*, 55: 60-89, July 1950.

⁶G. Orville Johnson and Samuel Kirk, "Are Mentally Retarded Children Segregated in the Regular Grades?" *Exceptional Children*, 17: 65-68, December 1950.

⁷Frances A. Mullen, "How Mentally Handicapped Children Learn," *Exceptional Children*, 24: 224-226, 1958.

(c) Mentally retarded pupils have greater opportunities for success when they are placed with pupils who are nearer their own level.

(d) Special equipment and facilities not generally found in the regular classroom are needed to facilitate learning for the mentally retarded.

(e) The regular classroom teacher can handle a larger class if the retarded children are removed.

In regard to the consultant program the following points should be considered:

(a) The consultant can serve the small school that does not have enough pupils for a special class.

(b) The consultant can serve a greater number of pupils than the special class.

(c) The consultant can tutor, but cannot offer the special curriculum needed by the retarded child.

(d) The success of the program depends too much upon the ability of the consultant to sell the program to the rest of the school.

The argument commonly offered regarding the expense of the special class is minimized by Wallin,⁸ who considers that repeating grades is an expensive practice and also contends that from the standpoint of social and vocational returns the special class represents an economic investment for society. Kirk and Johnson (p. 123) suggest that when mentally retarded children are kept in the regular classes the class size should be reduced to about half the ordinary number which is also an expensive practice.

Before any conclusions can be drawn regarding the most advantageous placement of the mentally retarded, further studies must be made in all areas of the education of the retarded child.

Great care must be taken to admit only those children for whom the special class was intended. The only way to avoid errors in placement is to require adequate examinations before placement is authorized and to establish and enforce definite admission standards.

Most of the studies in the field of selection advocate a procedure similar to the one suggested by Kelly and Stevens⁹ in which the teacher

⁸ J. E. Wallace Wallin, *Education of Mentally Handicapped Children* (Harper, 1955), p. 88.

⁹ Elizabeth Kelly and Harvey Stevens, "Special Education for the Mentally Handicapped," *Forty-Ninth Yearbook of the National Society for the Study of Education: The Education of Exceptional Children* (The University of Chicago Press, 1950), pp. 237-257.

makes the initial evaluation in terms of group standards. The second step is a group intelligence test which should be carefully selected and administered. The classroom teacher may need assistance in the selection of the test and the interpretation of the results. The educational and cumulative records should provide information concerning the child's past performance. A case history of pertinent data in the child's background is also of value in making a diagnoses. If the findings on the tests corroborate the school record of educational maladjustment, an individual examination by a qualified psychologist or diagnostician is advised. The psychologist, with the help of all available data, should be the one to make the diagnosis and recommend the program that will best fit the needs of the child. Some states furnish statewide diagnostic services for small communities.

Most programs make use of a screening committee composed of specialized school personnel such as the psychologist, the nurse, the curriculum consultant, the principal, the visiting teacher, the teacher and other appropriate personnel whose purpose is to develop an educational plan for each pupil and to decide when pupils are ready to be returned to regular classes.

Several significant trends in the direction of extending special services have been noted. The primary and intermediate classes have been the ones most commonly established in the past. In recent years there has been an increasing tendency to extend provisions to include pre-school and secondary school programs and classes for the severely retarded pupils. Kirk¹⁰ and Sloan¹¹ have experimented with pre-school mentally retarded children in an effort to determine the value of early education for the mentally retarded. Both studies report encouraging results, especially in the area of social maturity.

While the problem of the mentally retarded has long been a concern of the elementary school, it is becoming increasingly acute in the secondary school. The present upward trend in holding power of students and the general increase in school population has awakened schools to the need for extending the program upward. Hegge¹² presents arguments for continuing the special classes into the high schools. He con-

¹⁰ Samuel Kirk, "Experiment in the Early Training of the Mentally Retarded," *American Journal of Mental Deficiency*, 56: 692-700, April 1952.

¹¹ William Sloan, "Pre-School Classes at Lincoln State School and Colony," *American Journal of Mental Deficiency*, 56: 755-764, April 1952.

¹² Thorlief Hegge, "Education for Mentally Retarded Pupils of Senior High Age," *American Journal of Mental Deficiency*, 54: 190-191, October 1949.

tends that many of the retarded children continue to grow after age sixteen; others mature to the point of making better use of their learning. Remaining in school provides the opportunity to cultivate new areas of interest. The very slowness of the mentally retarded indicates the need for more time to educate them.

Dawe¹³ points out that the junior high school program should seek to improve basic skills and provide practical situations for their use, and should provide pre-vocational information to prepare the student for the more definitive instruction he is to receive in high school.

The attempts of high schools to adapt instruction to the mentally retarded pupils consist of various practices. Connelly¹⁴ summarizes the procedures as:

(a) Some schools attempt to meet all needs in a heterogeneous class.

(b) Some, using records of past performance and results of systematic testing to identify slow learners, group pupils for instruction.

(c) The intellectually slow group may be assigned to special sections in academic subjects with the balance of the day spent in regular classes.

Connelly states that there is a slowly emerging trend for the mentally retarded pupils to be assigned to one teacher for the major portion of the school day where they are taught by highly individualized methods.

A number of high schools such as those described by Borreca and others,¹⁵ Lovell and Ingram,¹⁶ Martens,¹⁷ Kelly¹⁸ and others report well organized classes where skill subjects are integrated into units of experience and social living.

¹³ Anne Dawe, "Trends Toward the Extension of Special Services for the Educable Mentally Handicapped at the Junior High School Level," *American Journal of Mental Deficiency*, 61: 692-697, April 1957.

¹⁴ George W. Connelly, "What Are the Secondary Schools Doing to Develop a Program for the Slow Learner," *National Association of Secondary School Principals Bulletin*, 40: 262-263, April 1956.

¹⁵ Frank Borreca and others, "A Workshop in Developing Lessons for Retarded Adolescents in a Program of Occupational Education," *American Journal of Mental Deficiency*, 55: 23-59, July 1950.

¹⁶ Catherine Lovell and Christine Ingram, "A High School Program for Retarded Girls," *Journal of Educational Research*, 40: 574-582, April 1947.

¹⁷ Elsie Martens, *Curriculum Adjustments for the Mentally Retarded*, Bulletin 1950, No. 2, U.S. Office of Education, Federal Security Agency.

¹⁸ Elizabeth Kelly, "A Family Living Course for Mentally Retarded Girls at Pre-Vocational School for Girls," *American Journal of Mental Deficiency*, 53: 193-198, October 1948.

The District of Columbia reports¹⁹ a tailoring of instruction and curriculum to fit discovered needs by offering a four-track program in the senior high schools. The retarded pupils follow a program known as the basic curriculum which is designed for students who are below sixth grade level in reading and arithmetic. The basic sequence may be followed to graduation if the pupil is unable to remove his educational deficiencies. This system allows the mentally retarded student to complete four years of high school education.

The organization of classes for the severely retarded has gained impetus in recent years as a result of pressure brought about by parent groups whose children have been excluded from school because of low ability. The parents and some educators argue that although the child may be considered uneducable, he may still be trainable in a practical sense and should therefore be helped by the school to realize his potential. Several states have recently accepted this broader definition of their responsibility and have passed legislation providing public school facilities for the lower groups.

A number of studies have been conducted in the effort to discover more efficient ways of handling classes for the severely retarded. In 1951 a survey was conducted by a committee of the National Association for Retarded Children²⁰ in the effort to determine the status of day classes for the severely retarded throughout the nation. Results of the survey revealed that classes have been supported by parent groups, local school systems, with or without state subsidy, or by private individuals who charge tuition. Criteria for selection generally was that the child be ambulatory, toilet trained, see and hear, show some readiness for training and be reasonably free from anti-social behavior. In a survey conducted in 1953²¹ of the status of classes for the severely retarded, the superintendents of major cities of the United States were requested to describe provisions in their schools for children with IQ's under 50. The practices were found to be so varied that no summary was made.

¹⁹ Carl F. Hansen, Summary of Presentation "How Can the Schools Best Provide for the Slow Learner," Proceedings of the Forty-First Annual Convention, *National Association of Secondary School Principals Bulletin*, 41: 77-81, April 1957.

²⁰ "Day Classes for Severely Retarded Children; A Report of the Education Committee of the National Association for Retarded Children," *American Journal of Mental Deficiency*, 58: 357-370, January 1954.

²¹ Mark C. Schinnerer, "Status of Classes for Mentally Retarded Children as Reported by Superintendents of Schools in Major Cities of the United States," December 17, 1953 (mimeographed report).

Nisonger ²² concludes from the study made by the American Association on Mental Deficiency in 1954 on the status of community training facilities for children with severe mental retardation that the establishment of facilities is a movement with great force and that statewide programs are expanding rapidly. He reports also that there is considerable uncertainty in areas concerning programs, public school participation and financing, and administrative responsibility.

Hill ²³ advises that in view of the many problems that are involved in establishing classes for severely retarded children and the limited experiences that may be drawn upon in planning new services that it may be desirable that the public schools should venture slowly into this field of education. He also suggests that a limited number of pilot or experimental programs be developed.

The curriculum for the special class has tended to be functional and to place emphasis upon serving present and future needs of the pupil. Martens (p. 12) states that the aims of special education require that curriculum emphasis be placed upon:

- a) education in keeping with the capacities, limitations and interests of each child,
- b) education for some participation in the world's work,
- c) education for healthful living and wholesome social experiences, and that the education be so planned that at the time that a pupil leaves school at the age of sixteen or eighteen he will have had the type of practical experiences needed to help him to live better as a citizen, worker and parent.

While many of the reports indicate a "watered down curriculum," another group tends definitely to depart from this practice. Stress on social adjustment is reflected in many reports. Borreca and others (p. 364) report on a workshop project in living, practiced in a New York program of occupational education. Kelly (p. 193) describes a project in family living for retarded girls.

The roles of the parent and the community should not be overlooked in the planning of special education facilities. Acceptance of the program cannot be expected without the understanding that comes as a

²² Hershel W. Nisonger, "Status of Community Training Facilities for Children with Severe Mental Retardation," *American Journal of Mental Deficiency*, 59: 335-337, October 1954.

²³ Arthur Hill, "Special Education Serves Them Too," *School Life*, January, 1952, pp. 55-61.

result of parent and public education. Coleman,²⁴ Drewry,²⁵ Weingold,²⁶ Grebler,²⁷ Levy²⁸ and others discuss the need for parent study groups as a part of the education program. Coleman describes a program which is quite typical of the parent group programs in which the emphasis is upon home and school activities. Motion pictures and talks by local authorities on various phases of child development help to acquaint the parents with various aspects of their problem. Discussions aid in correcting many misconceptions concerning mental retardation and help parents to develop a realistic attitude toward the child. Weingold discusses the trend of parent groups to take the initiative in developing services for their children in the areas of clinics, pre-school kindergartens, coöperative classes, sheltered workshops, after-school social activities, research projects and scholarships, and better state schools.

While there is an abundance of material describing practices in the education of the mentally retarded, there is a paucity of research that provides conclusive answers to the problems of special education. There seems to be general agreement on the philosophy, goals, curriculum and methods of special education. The procedures for screening and placement are generally uniform.

Considerable controversy exists in the areas of class organization, social and academic effects of segregation, and the age and ability range to be included in the school programs.

Only through continued study and research with the coöperation of all agencies in the fields of education, psychology, medicine and social agencies can we hope to resolve these points of controversy and achieve an adequate program for the mentally retarded.

²⁴ James C. Coleman, "Group Therapy With Parents of Mentally Deficient Children," *American Journal of Mental Deficiency*, 57: 700-704, April 1953.

²⁵ Henry Drewry, "Information for Parents of Mentally Retarded Children in New York City," *American Journal of Mental Deficiency*, 57: 495, January 1953.

²⁶ Joseph Weingold, "Parent Groups and Problems of the Mentally Retarded," *American Journal of Mental Deficiency*, 56: 484-492, January 1952.

²⁷ Annie Marie Grebler, "Parent's Attitudes Toward Mentally Retarded Children," *American Journal of Mental Deficiency*, 56: 475-483, January 1952.

²⁸ Joseph Levy, "A Study of Parent Groups for Handicapped Children," *Exceptional Children*, 19-20: 19-26, October 1952.

13. Planning for the Severely Retarded Child *

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After considering current trends and practices in the education of the mentally retarded, we turn to the question: How should we provide for the severely retarded child? Does he belong in a public-school program? William M. Cruickshank raises some vital issues by considering the basic philosophy of American education and its relation to planning for the severely retarded.

During the past ten years we have seen a number of state legislatures respond to community pressures with legislation which has provided either mandatory or permissive measures involving the public schools and the severely retarded child. This situation gives professional personnel cause for concern and, it appears to me, good reason for examining the situation with great care. Before I proceed to discuss the issue, I should like to make it very clear that I speak only for myself. I do not speak as a representative of the faculty of Syracuse University nor for those members of the faculty who are my colleagues in the area of the mentally retarded child. I should like it further understood that I reserve the right to change my mind sometime in the future as data from research studies begin to accrue to us. One of the serious problems before us at present is the large number of professional educators who have assumed a position with respect to the education of the severely retarded child, who have indeed climbed upon a popular band wagon of the moment, and who have done so without the advantage of data which might indicate the most appropriate position, although not possibly the

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most opportunistic position. I am sure that I too may be criticized for what I am about to say on the basis that I am doing exactly what I am criticizing others for doing. I will accept those criticisms before they are made. I have already reserved the right to change my mind as we receive objective data. I may be quite wrong in my position. I know I will not represent the current popular opinion of many of my colleagues around the country. I would like my remarks to be considered as those from one who is thinking out loud, who has himself not reached a final conclusion, but also one who is attempting to base his thinking on certain theoretical facts and philosophical positions which are relatively well accepted.

I premise my statements also on the full recognition of the value of parent activity in behalf of severely retarded children. These efforts have resulted in action which could never have been so quickly achieved in many localities. To ignore the value of the parent effort would be unrealistic and professionally unappreciative.

Finally, I should state that we are in full recognition that there is no single way in which to meet the problem. Communities and states, public schools and private agencies, may assume a responsibility in keeping with local problems and local pressures. The purpose of this address is to raise some serious questions regarding one plan which is being so universally followed, namely, the assignment of the total problem to the public schools.

In seeking some clarification of the issues involved in the problems of the severely retarded children, I should like to turn first to the crucial issue of responsibility. With few exceptions the states which have been active in legislation regarding the severely retarded child have enacted laws which effect the programs of their respective departments of education. Such is not the case in every instance. Ohio, for example, has legislation which effects the Department of Social Welfare. On the whole, legislation has related to the Department of Education. Certainly, as the parents and parent groups have approached the problem, they have involved originally the relation of the mentally retarded to the public school. Appeal by the parents to the public schools to solve the problem has been because the schools represent a socially approved community agency with which the parents are personally familiar. The appeal to the schools has been made without logical evaluation of the historical or contemporary function of the public schools and without

examination of the basic tenets on which our schools are founded. I should at this speaking like to challenge the idea that planning for the severely retarded child is solely a prerogative or function of a department of education or a function of the public day school.

If we turn to the history of education in American life we see that, since for whatsoever reason the Constitution of the United States avoids mentioning education, education is a right reserved to the state. This reservation of responsibility to the state is an idea which has on occasion been challenged, but always in the final analysis the courts have upheld the basic assumption that education is a primary responsibility of the several states. Education has been a right that the state has reserved to itself, because it was and is felt that the survival of the state, in the best sense of the term, can only be insured through an educated citizenry. Education was seen as the medium through which the citizens of the state could be prepared to reach a level of effective understanding and participation in civic matters and thus return something tangible or intangible to the state. A positive circle of action was thus set up. The people created an instrument, the state. The people (the state) reserved education to themselves because of its importance to the general development of the society. The people (the state) said that education must serve a specific role, i.e., making it possible for the very people who created the organization to return something vital to that organization. We, in the United States, often times fail to remember this important historical decision which was made many times over in all forty-eight states and where possible in the territories. We too often look upon education as a means for self-development and as the spring board for personal initiative and gain. Insofar as personal initiative, gain, and self-development directly or indirectly contribute to the social order, such would fall in to the more accurate and original function of education. A second basic question which must be argued is: "Who is to be educated within the frame of reference of responsibility which I have just delineated?" Certainly the founders of this country did not see opportunities for education being extended to everyone.

This recent concept has been a gradual development as the concepts of democracy have matured and have become more accepted. As the populace has become more educated, democracy has become more liberalized and education has been extended to more and more of our people. We cannot get an answer to who is to be educated solely from practice

nor from a definition of democracy in its more extreme form. We must examine two things: (1) the fact that education involves returning something to the social organization, the state, which provides education and (2) from the essential concepts of what education itself is. The former we have discussed superficially, and I will assume that for the sake of argument, we are in agreement that education means a return to the state which can be measured in some way. The second issue we have not examined.

Education implies certain very specific things. One definition of education suggests "that the activity involves the all that we assimilate from the beginning to the end of our lives in the development of the powers and faculties bestowed on us at birth." Another says that "it includes not only systematic schooling, but also that enlightenment and sense which an individual obtains through experience." Still another says that education "connotes not only the idea of knowledge received, but of such knowledge digested through application, drill, and discipline." John Dewey has written that "What nutrition and reproduction are to physiological life, education is to social life. This education consists primarily in transmission through communication." If we consider Dewey or any other writer on the meaning of education, we are immediately confronted with certain basic requisites for education. Education implies certain basic abilities or psychological capacities. The ability to generalize is assumed; the ability to reason and to make judgments is implied. The ability to remember and to form new concepts out of previous learning is a requisite. The ability to solve problems is in part related to reasoning, but is also essential. The ability to abstract and to deal with abstractions is implied in the concept of education. The ability to utilize language concepts, obviously an abstraction, is essential to education.

Let us now turn to an examination of the severely retarded child in the light of the two concepts we have just briefly outlined. Is the severely retarded child capable of meeting the definition of education which we have described? Can the severely retarded child generalize? Can he reason? Is he able to solve problems? Is he able to abstract and to form new concepts from previous abstraction? Is he able to utilize language concepts? Can he profit from an educational experience which, as Dewey states, is primarily transmitted through communication? The definition of mental deficiency requires negative answers to these ques-

tions. Our notions of mental deficiency are based on deficiencies in reasoning ability, in abstractions, in language concepts, in memory, problem solving, and in the ability to favorably respond to new learning situations. The severely retarded child, it seems to me, does not as a human organism nor as a personality meet the minimum essentials which are inherent in an accepted definition of education.

Secondly, does the mentally retarded child who falls within the popular term of "severely retarded" meet the minimum essentials of being capable of returning something to the community? It appears to me that only by the broadest stretch of imagination does he meet this essential. Some would say that the severely retarded child or groups of such children provide sources of research data. As such they make a contribution to the development of knowledge. As such they fall within the scope of public education. It is my feeling that this service is only the result of their being mentally deficient, and is not the result of any generous feeling which they as individuals may have towards society. Such research could be carried on with equal or greater ease in other settings than in the public schools. Others would and do say that the mentally deficient child in responding to certain types of specific habit formation and training makes family adjustment easier and thus frees the adults in the family situation for greater contributions to the community or to the normal members of the family. Because this is the result of a certain type of training, it is thus valuable and should be a responsibility of the public schools. I will not disagree that many severely retarded children who have been exposed to stimulation respond often times with improved skills in certain primitive and basic aspects of adjustment. I do say that such training is so primitive and so basic as to come within the responsibility of agencies *other* than the public schools and that such skills are inferior to the minimum definition of education and the purpose of public day school education.

Public day school education implies progress and advancement. The severely retarded child is essentially restricted and will for his life span be dependent upon other members of society even when he has had the optimum training opportunities. There is no social progress or advancement possible to society through the public day school program for the severely retarded. We delude ourselves if we believe otherwise. It may be opportunistic to create classes for the severely retarded in the public schools. I would not argue this. Let us, however, as professional

people not allow ourselves or others to believe that in providing training facilities for the severely retarded we are providing educational opportunities which are in the true spirit of public education. Such is not the case. When legislators advocate the extension of public day school provisions to the severely retarded child they are doing one of several things. (1) They are responding to the pressures of a given segment of society and are taking one way out of a complex political problem. (2) They are accepting without any real thought the often-heard statement that in a democracy every man can be a king and that the door of education should be open to all. Such implies that in opening the door the individual can meet the minimum requisites for education. (3) They are enacting laws which bring the concept of custody, primitive habit formation, and life-time supervision into education, a fact which has never existed in the literature previous to this time. It appears to your speaker that there are numerous reasons for assuming that the training of the severely retarded is the responsibility of other agencies than the public day school or the department of education.

We can discuss this situation further with some additional data. Nowhere have I stated this evening or previously elsewhere that the severely retarded child should be neglected. I am merely asking: Who should assume the responsibility for his training and appropriately assume it? Where is the proper locus of authority? I have ruled out public day-school education. I very definitely feel that the state and the community in the largest sense *do have a responsibility*. It is my further feeling that the agency which is in the best position to assume lifetime supervision of the individual is the most appropriate one for assumption of this responsibility. The concept of public education and the public day school implies that as a result of learning the individual will be able to assume a selfdirected role in society and that soon he will come to a position of personal independence and even assume responsibility for others—his wife and children or parents. This concept is completely unobtainable by the severely retarded child. If public education is to assume the responsibility for the severely retarded or trainable child, then public education must become a life-span operation. If the upper age limits of public education do not give or are not extended, then at 16, 18, or 21 years of age the severely retarded child in most instances *will become* the responsibility of the agency in the state which *can assume* such life-span supervision.

Since it is debatable that the severely retarded child meets the minimum definition for education and since the public day school in all probability will not assume life-span supervision of the child, is it not appropriate to initially consider the training of this group of children as the responsibility of the department of health, the department of mental health, the department of social welfare, or whatsoever other agency within a given state has been delegated this life-span responsibility? If I can continue to speak frankly, I will say that parents and community leaders are often times afraid to let the latter named departments assume responsibility, because in the past the departments responsible for institutional program have often times not met the challenge realistically. Residential program budgets have been so small that good programs of training, social work follow-up, and intra-institution activities have been impossible. It is this, however, which can be corrected and towards which we and parent groups ought primarily to bend our efforts. We should be assisting the residential schools for the retarded child to so improve their programs, to increase their size and number, and to expand their facilities into the communities that they can meet the greatly increased challenge of the severely retarded child.

Many, many residential schools for the retarded already operate on a colony basis for employable or semi-independent adults. Cannot the concept be extended to include the severely retarded child? I should like to see the residential schools of our state, for an example, develop a series of child day care centers in many communities immediately surrounding them into which would be received on a day care basis, the severely retarded children of a specific community. The residential school is in the business of meeting the needs of the severely deviating person. It already has the precedent of the colony extension of its facilities. The community day care center for the severely retarded is a mere extension of the colony concept. If the parents are appropriately asking for relief from the burden of the retarded child, such a community day care center would give the supportive relief which the parents now request from the public schools. Such a program would obviate the perplexing problems which the schools now seek such as adequate housing in already over-crowded buildings. Certification of teachers of the severely retarded is a perplexing problem to school people. Is a teacher really needed? Do we need nurses or attendants or practical nursing personnel? The schools for the most part require professional certification as a

teacher in order to be employed by a board of education. If child day care centers were established under the good offices of the residential schools, the certification problem would not exist. The adults working in the day care centers could be assigned by the institution from whatsoever professional field in terms of the type of need presented.

Further the utilization of the community day care center would mean that from a very early period in the child's life, the parents would have an association with a residential or institutional program. The very association with such a program would go far in breaking down the resistance which the parents so often have to the idea of institutionalization. The transfer of the child to a residential situation from the day care center could then be made with ease at a time most appropriate to the child and his parents. Action could be taken in an unemotional way at a time when individuals had needs which needed to be met. Parents have a perfect right to want to keep their retarded children in their own homes and communities. Many times, however, this is a rationalization on the part of the parents against the fear which they have of institutions. If, through the day care center, the parents could see the good in the institution, many parents would approach institutionalization much earlier and with a much more favorable attitude. Further, in those situations where institutionalization was indicated, immediate transfer of the child from the day care center to the residential center could be swiftly completed with little or no adjustive upset in the child.

Finally, I see the day care centers under the supervision of the residential schools as performing another service. If the public schools assume the responsibility, the parent can logically say, "My child goes to school." To the neighbor or to himself, "going to school" implies that this child is going to be able to do what all or most children do in school. It implies normalcy to the parent who is full of hope and to the community which knows no better. The parent continues under an illusion which inevitably someday must be accepted and recognized as a subterfuge. Placing the child in a day care center outside the administration of the public schools will assist the community and the parent to have a realistic understanding of the problem and will more quickly bring the parent to an insightful appreciation of the essence of the problem.

Even in the community day care center program which I am now advocating, I would bring public education into an appropriate role. The evaluation and assessment of young severely retarded children is dif-

ficult and always probably there will be some mistakes made. Children with better ability may initially begin their training in the day care center. A special education representative from the public school should be on the board of every day care center for the purpose of assisting in easy transfer and maintaining appropriate liaison with the public schools for that small number of children found later to be *educable*.

For what it is worth, this notion is offered as a realistic plan for the severely retarded children. Twenty years from now public day school education is going to be struggling to free itself from the legislation of 1954-1956, which has placed this terrific non-educational responsibility in its offices. Current legislation is unrealistic; it is opportunistic and unfortunately hurried opportunism at that. Wherever we can, we should urge the strengthening of our residential programs for the severely retarded, the development of community programs for the severely retarded outside of the public schools and within the supervision of more appropriate life-span agencies, the development of counseling agencies and offices for parents of severely retarded children, and an awareness on the part of the community as a whole of its responsibility to the severely retarded and to the parents of such children. It should be noted that we are not herein in any sense discussing the educable retarded child. This, without question, is a major responsibility of the public day schools. The severely retarded child is not an obligation which can be over-looked any longer. The fact that we have over-looked it for so long now means that in a rush to rectify our errors we have permitted the program to be illogically placed in many instances. This is an obligation, however, which must be logically accepted, logically appraised, and logically carried out in the best interests of the severely retarded themselves, more important in the best interests of the parents of these children, and still more important from the point of view of the community and public education as a whole.

14. Aspects of a Community Program for the Retarded Child *

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How can the family, the school, and the community cooperate to help the retarded child? What can the professional person do to help the parent react realistically to such a child? Because many parents are unhappy and conflict-laden, it is only through skillful handling and more than merely "conveying the facts" that they can be helped. In this article Dr. Sarason discusses the important area of communication between parents, community, and professional personnel concerning the child who is mentally retarded.

Two weeks ago I received a call from the secretary of a local organized group of parents of cerebral palsied children. It seems that one of the mothers had been trying to get her seven-year-old daughter into the kindergarten of one of the public schools. The school had refused admission because the child was not considered eligible. The mother, believing that the child was eligible, took her for a psychological examination to the out-patient clinic of one of the state training schools. The psychological report was sent to the secretary who was calling me, and who had suggested that the mother have the child given a psychological examination in order to use it as evidence for her belief that the child should be in kindergarten. The psychological report contained the following: (A) a diagnosis was deferred because the child did not talk and the suggestion was made that the child should be seen again when she had learned to talk; (B) on those test items which could be given to the child her mental level seemed to be around three years;

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(C) the child should not be institutionalized at this time; (D) she should be entered into a kindergarten class if she was considered eligible by the school. The problem with which the secretary of the parent group confronted me was what should she tell the parent?

The above situation is by no means infrequent, and in my own experience is the rule rather than the exception. In trying to understand these frequent situations we might ask this question: How do these situations come about? Before trying to answer this question we first have to ask other questions: What is the nature of the situation here and now? What are the problems with which we should be concerned? Briefly stated, here are the important aspects of the situation:

1. We are dealing with a parent who has certain beliefs about what her child can learn to do.

2. The mother's beliefs are not shared by school authorities.

3. It is very likely that the mother has a very hostile attitude toward the schools because she feels that they are being unfair and discriminatory.

4. It is also likely that the school authorities consider the mother to be unrealistic and aggressive—in short, a nuisance.

5. It is a fact that the schools do not consider this child to be *their* problem.

6. The psychological report does not support the mother's beliefs about the child's capacities.

7. The psychological report contains a recommendation about kindergarten which makes little sense in light of the earlier refusal of the school to admit the child.

8. The psychologist did not discuss his report with the mother.

9. No one, except the local parent group, considered the parent to be their problem, or understood, let alone tried to handle, the deep anguish she undoubtedly was experiencing.

Let us now make one assumption: the mother has an unrealistic conception of her child's capacities. If this is so, it is difficult to see how anything done—by the school or the psychologist—was oriented toward helping this mother achieve a more realistic attitude. Telling a mother that her child is not eligible for school may be a valid statement, but in no way does this solve the mother's problem. In fact, making such a statement to a mother is evidence of the fact that the school assumes that only the child is a problem. Telling a mother that

her child is not eligible for school without at the same time making concrete proposals concerning the child's training obviously does not help the child, but, just as obviously, increases the severity of the mother's problem. In the case of the psychological examination apparently no attempt was made to convey anything to the mother. The function of a psychological examination is not only to collect data about a child and his problems, but to use these data to help parents react realistically to the child. If the psychologist, for example, had only conveyed to the parent that the child was severely retarded, then he would have been as superficial in his approach to the problem as were the school authorities.

In short, in these situations we are dealing with unhappy, frustrated, conflict-ridden parents who have no one to whom they can turn for help. It is little wonder that they become hostile and direct such feelings toward those who gave them facts but no help. By help I mean a sustained attempt on the part of some trained person to understand the motivations of the parents, their frustrations and hopes, and by virtue of such understanding, as well as by previous training, enable the parent to accept more realistic and satisfying attitudes. It is worth repeating: in these situations to convey facts should not be taken as synonymous with giving help.

There are other comments one can make about the kind of situation we have been discussing:

1. In most instances, our schools do not understand the psychological ramifications of these situations and it is, therefore, not surprising that they usually do not have the facilities for handling the child or the parent. To handle the situation properly presupposes an understanding of the problems which most educators do not have.

2. The fact that our teacher training schools prepare students in an inadequate way for meeting the problems in this area is but a reflection of an absence of community consciousness about the problem. Too many communities are content to have the handicapped child institutionalized. Too few communities make an attempt to utilize their own facilities or to set up new resources for the handicapped child. I have seen countless children who, after spending several years in an institution, were returned to a community which had little or nothing to offer them in a social, educational or vocational way.

3. The most discouraging feature of these situations is that there

usually have been countless earlier opportunities when the parents could have been given a realistic understanding of the problem, prepared for the future problems with which they will be faced, and a concrete program of action formulated. The great bulk of these children have been previously seen by a variety of medical specialists who, for one or another reason, failed to see the social-psychological ramifications for the family, the school and community.

This last point deserves elaboration. There are cases, probably a small minority, where the seriousness of the child's retardation was simply not caught. Sometimes this is due to the incompetence of the physician or psychologist, and sometimes to the fact that our diagnostic methods are not perfect. That our instruments for evaluating intellectual capacity in very young children are not as good as we would like is no reason for not using them. What these imperfections mean is that we must be cautious in assigning weight to a single examination and make provision for a series of examinations with appropriate time intervals. If a series of examinations point to a certain conclusion, we can be more sure of the validity of that conclusion than if it were based on a single examination. One implication of what I have just said is that in the case of very young children the diagnosis should be made by a person with special training in this area. Because a person is a physician or psychologist is no reason for assuming that he has competence in this particular area.

In the great majority of cases, however, the seriousness of the child's retardation was recognized when the child was still very young. If so, one might ask, why does the situation I described earlier arise? There are several reasons:

1. The physician feels that it is not wise to tell the parent until the child is older. The logic behind this unhappy procedure is not always clear. One physician said: "If they can be happy for a few years, why should I stand in their way? They will have enough trouble later on." Some physicians feel that one should not discuss the problem until the parents themselves become aware of it. Whatever the logic the consequences are unfortunate. Ignorance may be bliss, but there are more than a few parents who gladly would have liked to have been spared the bliss. In some cases the awakening is so rude that parents strive (consciously or unconsciously) to prove that the blissful period is not

over. They may become hostile to the physician for withholding the information, question his competence, and seek help from others.

2. Frequently the physician does tell the parents about the child's condition, but because he finds this obligation such a painful procedure he talks out of both sides of his mouth. At one point he gives glimpses of the true condition, but at another point he reassures the parents with unwarranted optimism. He cannot bring himself to reveal the unvarnished truth which can then serve as a basis for a realistic program for both child and parents. It is to be expected that parents will remember the optimistic and forget the pessimistic aspects of the information which have been conveyed to them.

3. Although the physician may tell the truth to the parents, frequently he fails to relate the educational problems which will confront them in the future with their child. It is easy to tell parents that their child will be able to go to school, but do the parents know that this may mean that the child conceivably might go only as far as the fourth grade? That the schools in the community may not have facilities for their child? That the child may be able only to learn to recognize a few words and do only the simplest of arithmetical tasks? In short, the parents are rarely told what kinds of educational problems they will probably have to face. Unfortunately, too few physicians know the educational system of their community in a way which would allow them to be of more help to parents.

What has all this to do with the setting up of a community program for the mentally retarded? Let me answer this question by giving what I think the aims of such a program should be. First, to detect as early as possible the mentally retarded child; second, to help parents gain a more realistic understanding of their child so that his capacities can be realized; third, to begin to plan with the parent the future program of the child; fourth, to bring our educational system into the picture long before the child is of school age so that the clinic, parent, and school can gain a much better understanding of each other's problems than they now have. In short, the aim of such a program is to prevent personal unhappiness, mutual distrust, self-plaguing, and misdirected use of energies. *At the present time we spend the large proportion of our time working with problems which never should have been allowed to arise.* For example, in the case I described earlier we found a psychologist, a

parent, and a school system expending time, effort and money with one result: the parent is probably now more desperate, hostile, confused, and unhappy than before. The point I want to stress is that such an unfortunate situation could have and should have been prevented.

A community program would seem to require the following:

1. A mass educational program the aim of which is to urge parents to bring their children to appropriately staffed clinics for evaluation of their mental and physical growth. The emphasis should be on the pre-school child especially those between two and six years of age—ages at which defects become most apparent.

2. The setting up of clinics comprised of medical, psychological and educational specialists. The problems of the handicapped child as well as those of his parents cannot be handled by any one specialist. The emphasis in each case should be on formulating, as soon as possible, a concrete training program and supervising the execution of the program, *even if that means that the clinic comes into the home*. When you tell parents to give their child a particular medication three times a day, the chances are that this will be done. In the case of the handicapped child, however, the prescription is a complicated one, not only to understand but to carry out. Parents need support, encouragement and advice, not only during the clinic visit, but when they are faced with and responding to their problems in the natural setting in which they arise.

3. The community must meet its obligation to provide appropriate educational, occupational and recreational facilities for these children. In providing such facilities attention must be paid to the fact that some day these children will be adults with special problems due to their mental handicaps. The aims of a well-organized program for the childhood and adolescent periods can be defeated by failure to meet the problems of later life.

4. There must be an effort made to get the various professional personnel in this area (a) better acquainted with the need which they should have for each other, (b) the limitations of their own training, and (c) a more keen awareness of the psychological, educational, and community aspects of the problems with which they are dealing.

5. There are many problems in this area for which we do not have answers. Some of these are medical problems, others are problems in psychological measurement and treatment, while others are concerned with the educational process. Any program in this area, therefore, must

stimulate and support research. If there is any lesson we can learn from the history of science, it is that in the long run research pays off. We *must* stimulate and support research programs because not to do so guarantees a sterile program, inadequate solutions, and the continued despair of all concerned.

15. Counseling for Psychological Acceptance: The Mentally Retarded *

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Much has been said about the need for handicapped persons to "accept" their disabilities and the limitations they impose, but little has been done to assist counselors in accomplishing this task. The following article discusses counseling of the mentally retarded in various settings. The emphasis is on acceptance of the handicap in a positive, rehabilitative sense.

The term "counseling" may be interpreted narrowly, in terms of an interview relationship only, or broadly in terms of personal relationships in many situations. For the purpose of this paper "counseling" the mentally retarded is used in a broad sense and applied to three major areas: (1) educational, (2) personal, and (3) vocational.

Counseling in an Educational Setting

Educational counseling of the mentally retarded is carried on mostly by teachers of the mentally retarded. It is done through the program of the special class itself. Principles of counseling in which the individual

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is allowed to work out his own educational problems under an accepting and sympathetic teacher are basic to both counseling and special class philosophy.

Teachers of older mentally retarded youth, especially in secondary schools, are the logical personnel for counseling. They are in a better position to organize a total and comprehensive program than is the professionally trained psychiatrist, psychologist, or social worker who has limited time for such activities. They are in a position to better fit the pieces together. All special teachers should have training in counseling so that they can do a more efficient job of special education.

Counseling by teachers in secondary schools may be done in a number of ways. A common procedure involves individual conferences with the pupils. These conferences take the form of interviews and are utilized to discuss with the pupils any problem which they care to bring up. At the outset the majority of interviews relate to the youth's school work. They deal with lessons, relation of the youth to other pupils in the class or the rest of the school, their school schedule, and difficulties arising in the school situation. If the boy or girl has confidence in the teacher many other personal problems are discussed. Home conditions and the difficulties with the mother or father come out frequently. Boy-girl relationships are discussed with the teacher, because in many instances the youth is unable to discuss these problems with his parents. Vocational aspirations and problems are frequently the topics of the interview.

Another type of educational counseling involves a classroom situation or a group session. This kind of situation lends itself to group work, not only of an instructional nature, but of a group counseling nature. One teacher utilized the sociodrama technique in a class for both personal and vocational counseling. Many times the problems arise from questions that pupils raise in a classroom, or from common problems presented during private conferences. Sometimes the problems arise from newspaper items or from controversies arising in the classroom. The problem is clarified and presented to the class by the teacher and a "skit" or a form of sociodrama is organized by the pupils. It is recorded and played back to the class for further discussion. One teacher who used this process reported:

There has been an improvement in the total personality picture of nearly every child. One boy had only one answer to give to every

teacher request the first few months of school. He would say, "I ain't going to do it!" By the end of the year this was changed. Another pupil, a girl, reported that some boys wanted to take her to a night club in a nearby city. She stated that she was going to go until all at once she remembered a skit about a girl going out with strange boys. I have just received a letter from a boy who was moved to a city in another state. The boy states that he had just been hired as a car washer in a filling station and reports that he knew how to apply for a job as a result of his experience in a sociodrama on applying for a job.¹

Counseling by teachers in a school setting, when properly carried on, is conducted in a variety of ways besides those described. Planning the activities with the children is a form of group counseling. Good teachers do much of this in the school setting. An example of allowing higher-grade mentally retarded adolescents to plan their own programs has been carried out for many years at the Wayne County Training School.² In this project a group of adolescent boys were allowed, through meetings of their own, to organize a self-determining cottage in an institution. A large degree of group autonomy was given to the boys in their living situation. The boys were allowed to make mistakes and to learn from such experiences. They evolved their own rules and exercised poor control over the individuals. Institutional and attendant personnel served only as advisors or counselors. The success of the initial project resulted in its extension to other cottages in the institution. According to the Superintendent the project is no longer (after 15 years) conspicuous since its philosophy and practice has permeated the whole institution.

Individual Counseling

Psychiatrists, psychologists, and social workers have been called upon to give counseling and psychotherapy to disturbed mentally retarded individuals. There is some prejudice against spending time on individuals who would have difficulty in obtaining "insight" into their

¹ Samuel A. Kirk, Orville G. Johnson, Martha Black, Russell Duffin, and Ivan K. Garrison, *Educating the Mentally Handicapped in the Secondary Schools* (Springfield, Ill., Superintendent of Public Instruction, 1951).

² Samuel A. Kirk and Orville G. Johnson, *Educating the Retarded Child* (Houghton Mifflin, 1951), pp. 341-359.

own problems. Many believe that since psychotherapy with adolescents and adults is at a verbal level, little can be accomplished in the way of changing attitudes and basic dynamics with the mentally retarded. A number of articles have been reported in the literature emphasizing counseling and psychotherapy with mental defectives. Thorne³ used not only non-directive counseling and directive counseling but also changed the philosophy of child handling in the institution to obtain results. His approach was more than personal interviews alone. Abel⁴ discussed the problems of psychotherapy with disturbed mental defectives. In her work she utilized matrons who would accept the children, occupational therapy, work with parents for greater acceptance, and group therapy. The procedure was not confined to psychoanalysis or non-directive interviews.

Sarason⁵ has summarized the few studies on psychotherapy with mental defectives and concludes that mental defectives do respond to psychotherapy (individual and group) and benefit from it. He feels that more research is necessary and that the results should influence current practice in handling the mentally defective.

It is the author's experience and opinion that personal interviews with older mentally retarded have some value, but these must be supplemented by environmental changes of a concrete nature. Doing something for the individual; assisting others in understanding and accepting him, and building confidence in the individual through counseling which will lead to success in social interaction or in work adjustment is necessary for successful adjustment. Writers who feel that counseling is beneficial have usually done more than conduct a counseling interview. They have aided others in understanding the client, and have manipulated the environment to assist the counseling process. Although psychologists, psychiatrists and social workers have reported projects in counseling and psychotherapy, there are few reports of teacher counseling and adjustment in the literature. The most practical procedure is for professionally trained psychotherapists to work with teachers or employers in

³ F. C. Thorne, "Counseling and Psychotherapy with Mental Defectives," *American Journal of Mental Deficiency*, 52: 263-271, 1948.

⁴ Theodora M. Abel, "Resistance and Difficulties in Psychotherapy of Mental Retardates," *Journal of Clinical Psychology Monograph Supplement*, April 1953, pp. 9-11.

⁵ Seymour B. Sarason, *Psychological Problems in Mental Deficiency* (Harper, 1953), ch. 10.

helping them introduce and practice the principles of counseling in a special class organization, or in a work situation.

Vocational Counseling

Vocational counselors of the physically handicapped have leaned largely on the medical profession to correct disabilities or to inform them of the vocational limitations imposed on the client because of the physical handicap. In the case of the mentally retarded the source of referral and information about the personal, mental, and social limitations of the client comes largely from home and school sources. The basic information for the vocational counselor for the mentally retarded must therefore come from school records and teachers as well as from the family.

In the past, schools have retained the mentally retarded until the age of compulsory school attendance. Finding employment and adjusting to a work situation was a matter of chance. Jobs were secured by the retarded through the aid of their parents, relatives or friends. Registration with employment services was not the solution since the employment service gives employers their most experienced and trained registrants. The mentally retarded individual's file card was continually shifted to the rear of the file. In periods of shortage of man power many received jobs. In periods of unemployment they were the last to be hired. The system was *laissez-faire*.

Among the studies that have been made of the adjustment of the mentally retarded in vocational assignments is that of Peckham.⁶ He found the following difficulties:

1. The mentally retarded quit jobs because of teasing and ridicule by fellow workers.
2. They have difficulty in social and vocational sophistication, such as having difficulty in transportation, leaving work without notification, and unwarranted sick leaves.
3. They quit because of dissatisfaction with salary.
4. They do a poor job of budgeting their money.
5. They lack initiative and job responsibility.
6. They quit a job because of impulsive reasons.

⁶ Ralf A. Peckham, "Problems in Job Adjustment of the Mentally Retarded," *American Journal of Mental Deficiency*, 56: 448-453, October 1951.

7. They quit jobs because unskilled jobs for some are below the dignity of some families and some clients.

8. They quit jobs because of an inability to read directions at work.

9. Family overprotection sometimes results in quitting a job.

As one reads these difficulties one is reminded of the same reasons for many teen-agers and adolescents who quit jobs for the same reasons. Whether the frequency of quitting jobs and the frequency of reasons differs from non-mentally retarded can only be answered in a study with a control group. The reasons for quitting jobs listed by Peckham are all signs of immaturity and can be ascribed to the social immaturity of the mentally retarded.

It is interesting to note that in Peckham's study, which is corroborated by others, the mentally retarded do not lose unskilled jobs because of inability to do the tasks required. The basic reasons are those of a social or personality factor rather than a lack of ability in the task.

Such studies raise the problem of vocational counseling for the mentally retarded. The counselor of the mentally retarded should keep in mind the following facts in his work:

1. The mentally retarded are best capable of holding unskilled jobs.

A small proportion can hold semi-skilled jobs with proper training.

2. The mentally retarded are going to require more counseling time than other clients. The counseling job in vocational work is primarily personal, rather than vocational training.

3. The mentally retarded can best be trained in on-the-job experience.

4. It is necessary for the counselor to inform the employer of the limitations of the client and to solicit his cooperation in training and job placement. Acceptance of the disability will be dependent upon the attitude of the employer.

5. The family of the mentally retarded must be assisted in aiding the retarded in adjusting to the job. Acceptance by the family is also essential.

6. The ability to get along with co-workers, dependability, job interest, desire for more adequacy of performance, job satisfaction and cheerful acceptance of criticism are the traits that employers desire in an employee. It is the job of the counselor to assist in the development of these traits. The work itself can usually be learned on-the-job.

Accepting the Disability

Acceptance of the disability—i.e. mental retardation—actually means that the individual must recognize his limitations, accept them, and adjust to them. Lack of acceptance may result in a discrepancy between ability to perform and aspiration level. Such a discrepancy inevitably leads to frustration and inadequate adjustment.

It is my opinion that an individual must grow into acceptance of his disability over a period of years, and especially during the school years. School programs should be so organized that the individual can grow into acceptance of his disability. For example, a crippled or mentally retarded child who is placed in classes with so-called normal children tends to absorb and develop the aspiration level of this peer group. Since because of his handicap he is unable to perform like other children physically or mentally, he tends to become frustrated and insecure. Such a practice does not assist the child in accepting his disability.

On the other hand, a crippled or a mentally retarded child placed in a class of children with similar handicaps has a better chance of accepting his disability. Here he accepts the aspiration level of the peer group. The aspiration level for such a group is more in harmony with his abilities to perform and to succeed. He can begin to accept his disability because he sees it in others and because it is a practical program for him.

In his neighborhood such a child associates with non-handicapped children. If their aspirations and activities are not in harmony with his abilities he still has security in his school peer group (handicapped). He can "take" the isolation at times in his neighborhood group because he has become secure in his school peer group. Such a child begins to recognize and accept his limitations, whether he is with handicapped or non-handicapped individuals.

16. Vocational Rehabilitation for the Mentally Retarded *

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Can persons with I.Q.'s below 70 be integrated into the working force in the United States? What type of jobs can the person with retarded mental development do successfully? According to Salvatore G. DiMichael, a leader in the field of vocational rehabilitation for the mentally retarded, "vocational rehabilitation is not a self-contained program," but is necessarily a cooperative endeavor of teacher, doctor, psychologist, and social worker.

Those of us who are concerned with the vocational rehabilitation of the mentally and physically handicapped know well the resistance of employers in accepting disabled workers who are well prepared for suitable jobs. We also know the adverse attitudes of society, and even the lack of confidence shown by the handicapped themselves who unwittingly imbibe the negative atmosphere. Unfortunately, we also see the same philosophy of negation in the ranks of professional people—counselors, physicians, psychologists, social workers, educators, lawyers, and others—who advise parents and the handicapped that a life of productiveness and social contribution is not possible and that the handicapped should be sent to the sidelines.

One of the biggest barriers to more effective rehabilitation is the conglomeration of falsehoods, half truths, prejudices, and fears which grips the social atmosphere. It is our own creation and a sort of self-imposed prison of thought and action. Like all psychological barriers, it is one which must be broken by society itself. In this re-educational

* Reprinted and edited from *Personnel and Guidance Journal*, 31: 428-432, April 1953, with the permission of Salvatore G. DiMichael and the American Personnel and Guidance Association.

process, counselors should play a prominent role in implanting a philosophy of positive action for the handicapped.

Of course, not all people are shackled by varying feelings of hopelessness for the disabled. Considerable strides have been made, particularly during the last ten years, in rehabilitating the disabled to a life of productiveness. The number of enlightened employers is constantly increasing as they have learned that well-prepared and trained handicapped persons perform creditably on jobs for which they are suited. Professional people are learning of the techniques of restoration and are becoming more "team-minded" in their approach. The physician cannot regard his job completed when his client leaves his office or hospital, nor can the psychologist make his examinations and call for the next case, nor can the educator graduate his student and lose sight of him, nor can the counselor solve the problems of the client by referral to the social worker for public assistance. All must work together until the handicapped person is restored to his fullest degree of personal, social, and vocational productiveness.

For the mentally retarded, the same kinds of problems and doubts are present. The parents experience a hard emotional blow in finding that their child is unusually slow in learning and general development. Many recommendations are made to them with a frequent experience of confusion, mixed up with alternating periods of hope and despair. The result is that many children with potentialities for a life of limited but positive contribution are hampered by parental doubts. When the mentally retarded adolescent and adult come to the vocational rehabilitation counselor, some parents are afraid to train their children in a life of greater independence. Unquestionably, significant progress is being made in getting many mentally retarded persons into jobs, persons who formerly were not regarded as employable. To accomplish this goal we need to establish more effective professional services with increasing emphasis on special education for children, occupational training for adolescents and adults, and progressive counseling which is really a process rather than a one-time contact.

The rehabilitation of the mentally retarded is not something which has happened only within the last ten years. Well-versed and enterprising professional workers in the field have been aware of the possibilities of rehabilitation for a considerable time. It must be admitted, however, that there was a time, not long ago, that even the authorities in the field

of mental deficiency regarded rehabilitation as hopeless. The venerable pioneer, Dr. Fernald, admitted in 1919 that he too had regarded the rehabilitation program as an impossibility for this group, and that he had changed his mind in the face of the evidence.

Many subsequent studies have demonstrated that a surprising number of the mentally retarded are employed in unskilled and semi-skilled jobs. For a full documentation reference may be made to the book on *Vocational Rehabilitation of the Mentally Retarded*, particularly Chapter 6 written by Anna Engle on "Employment of the Mentally Retarded."¹ Probably one of the important factors which has kept professional people from realizing the potentialities of the mentally retarded is the widespread use of an IQ of 70 as a dividing line for the so-called feeble-minded. But specialists know that the greater majority of persons with IQ's below 70 have potentialities to become satisfactorily employed if they are properly trained and given a variety of professional assistance, including counseling.

One of the relatively new organized programs working in behalf of the mentally retarded is the State-Federal program of vocational rehabilitation. This program has been in existence since 1920 and served the physically handicapped until major amendments to the Federal legislation were adopted in 1943. One major amendment was the inclusion of the mentally handicapped, that is, the emotionally disabled and the mentally retarded. Varied services now are offered under the program to the mentally retarded.

This phase of the program is relatively new and services to the mentally handicapped have not as yet been established on a thorough basis in the program. In 1949 the Federal Office of Vocational Rehabilitation realized that one of the most serious blocks was the lack of knowledge about the problems and rehabilitation procedures for the mentally retarded. As a result, the Office sought the cooperation of the American Association on Mental Deficiency and produced the book on *Vocational Rehabilitation of the Mentally Retarded*. Subsequently, State rehabilitation agencies have taken a number of steps to train counselors and have made profitable use of the book as a training device.

The record of the State-Federal rehabilitation program to date, in

¹ Salvatore G. DiMichael, ed., *Vocational Rehabilitation of the Mentally Retarded*. Reprinted in *American Journal of Mental Deficiency*, 57: 169-337, October 1952.

behalf of the mentally retarded, may not be regarded as highly impressive but it represents a positive beginning. From 1945 to 1951, approximately 4,000 mentally retarded persons were rehabilitated into employment. The number has been steadily increasing with each passing year. According to the latest figures for any one year, 592 were rehabilitated during 1951. Of these, 94 per cent were unemployed when accepted for rehabilitation, 37 per cent had never worked, 81 per cent were depending on their families, and 6 per cent were on relief. The average client had only seven years of schooling and was 19 years of age at the time of acceptance. Before rehabilitation, the group earned approximately \$35,900 annually while after rehabilitation the estimated annual earnings were \$922,400, that is, nearly 26 times the total annual earnings before rehabilitation. The jobs after rehabilitation were almost entirely on the unskilled or semi-skilled levels but they represent a positive contribution to the manpower production of the country.

Since the earliest that vocational rehabilitation can accept a client is at the age of 14 or 15, we are tremendously concerned about the preparation of the individual in childhood and adolescence. The rehabilitation team cannot, within a short space of time, re-make individuals who have been neglected or maladjusted during the important formative years. The program recognizes the vital role of such agencies as the medical clinic, special education, residential schools, associations for parents, and the correlated professional services of physicians, psychologists, social workers, educators, and others. These services must be improved and expanded to increase the effectiveness of vocational rehabilitation wherever it is done. Although this point needs to be stressed, it cannot be dwelt upon at greater length because this article is concerned with the adolescent and adult mentally retarded.

A firm basis for the initiation of a program of rehabilitation for the individual is a careful diagnostic, medical, psychological, and social study. From an understanding of the facts about the individual's problems, it is then possible to build a program with reasonable assurance of success. For each client, a general medical examination is obtained and other specialists examinations as required. A psychological examination is made to evaluate the potentialities, capacities, and personality. The counselor also plays a part in the diagnostic workup by obtaining data on the family, community, educational, and vocational history. Although these facts enable the counselor to determine the eligibility of the client,

their importance is far greater in terms of the vocational diagnosis and rehabilitation prognosis which are formulated.

A study completed recently in the Office of Vocational Rehabilitation threw some light on the ways in which rehabilitation works.² One of the main findings demonstrated the role of vocational and personal counseling. It was found that the counselors had to spend a considerable amount of time in helping clients select realistic job objectives and in helping them to solve the concrete problems of daily living which hampered them from obtaining employment. Counseling with the mentally retarded involves the mutual discussion of troublesome personal problems. Since the mentally retarded do not have the full capacity to plan ahead and to see in full perspective the outcomes of their actions, the counselor must deal with the problems in a concrete and patient manner.

Another finding in the same study showed that considerable time and energy had to be spent in interviews with parents. The family problems involved such matters as over-protection, fear of having the individual travel and work on his own, and convincing parents of the realism of the vocational plan. In a number of instances the parents continued to hope that the retarded individual would be able to be trained and placed on skilled and semi-skilled jobs for which his capacities were not suited. On the other hand, it was found that many families could be relied upon for unusual cooperation with the result that rehabilitation was done much more effectively and quickly.

One of the somewhat unexpected highlights of the study was evidence of the great need for occupational training. In the sample study, approximately 50 per cent of the retarded were provided with vocational training. The most frequent type was on-the-job training. This probably is due to the fact that training resources for retarded adults are not established in the community under a trained educational staff. Another reason for this fairly high number of clients who needed occupational training may be that the retarded respond better to an actual work situation. Training was also obtained in the schools, through residential institutions, and tutorial arrangements.

Professional workers in general are not aware of the great need for occupational training among the mentally retarded. Highly intelligent people have been made to think that unskilled and semi-skilled jobs are

² Salvatore G. DiMichael and W. B. Terwilliger, *Counselors' Activities in the Vocational Rehabilitation of the Mentally Retarded*, Office of Vocational Rehabilitation, Federal Security Agency, 1952.

routine and require very little training. Actually such jobs are as complex and difficult to learn for the mentally retarded as are skilled jobs for persons of average intelligence. It seems necessary for us to become much more aware of the need for longer, more competent, and patient training than is presently conceived among workers for the mentally retarded.

The study also disclosed that a small number of clients were not prepared to take occupational training until they had been given more fundamental preparation. This preparation is called personal adjustment training, a term which refers to such things as teaching the individual to take care of his personal needs, to travel alone, to know the skills of social inter-action, and to develop specific habits that are required in employment such as promptness, neatness, ability to take supervision, to work under pressure, and to make sustained efforts to produce the assigned work. Unless such habits are ingrained in the individual, we cannot expect that occupational training alone will be sufficient for meeting the demands of the jobs.

Another available service under the rehabilitation program is medical restoration. It has been our experience so far that a fair percentage of the mentally retarded require medical surgery and treatment for accompanying disabilities. However, even though the percentage of clients who receive these services are not as high as those receiving training, nevertheless, medical restoration is essential to the rehabilitation plan whenever it is required. The more we can correct, diminish, or cure secondary disabilities accompanying mental retardation, the greater is the individual's chances of becoming employed. Sometimes the services may take the form of major surgery, sometimes psychotherapy, artificial limbs, and training in their use, etc.; on the other hand, we unfortunately find that some clients have a need for glasses or dental work which should have been provided many years ago.

The counselor is always obliged to assist the client in seeking employment in a job for which he is suited. In some cases this assignment may be made more difficult by the presence of marginal abilities or multiple handicaps. Such a situation requires that greater time and energy be devoted to the job-seeking phase. One of the factors which makes vocational rehabilitation work is the application of the principle that the job and the person must be desirably matched. In order to accomplish this, it sometimes is necessary to contact many employers and to make many job analyses.

In the minds of the average professional person, jobs at the unskilled or semi-skilled levels are very few in variety. Since these workers are unacquainted with the world of work, they are unaware of the tremendous varieties and types of jobs in the lower levels of the occupational hierarchy. In the sample study on the mentally retarded, it was found that 97 cases were placed in 69 different kinds of work. The findings presented a wholesome picture. In the first place the counselors are not restricting the opportunities of the members of this handicapped group to a few routine job channels; secondly, the data indicated that the mentally retarded have wide job potentialities even though they work in unskilled and semi-skilled occupations.

The placement of the client on the job is not a terminal point in rehabilitation but another step toward the goal of personal-social-economic adjustment. Placement is followed by the climax of the rehabilitation process, namely, the follow-up. The crucial nature of the follow-up in the adjustment of the client is well illustrated by Rockower and Potts in their chapters of the book on *Vocational Rehabilitation of the Mentally Retarded*. In the study previously referred to, DiMichael and Terwilliger found that the rehabilitation counselors were making up to 13 follow-up visits on any one case to help the individual acclimate himself to the demands of the job. These visits serve many purposes: for instance, to give the client extra training assistance in learning the duties of the job satisfactorily. In some instances it was necessary to arrange for room and board after working hours and to plan for recreational time.

Vocational rehabilitation does not, and cannot, pretend to be a self-contained program. It must work in close cooperation with other community agencies as part of a total rehabilitation plan directed by the community as a whole. No counselor should lose sight of the need for teamwork, not only by professional workers but by all the community agencies working in effective partnership with the family and the client.

When the facts are widely known from studies such as those mentioned in this paper, the current social attitude of "hopelessness" will change to "realistic hopefulness." And with it will come less prejudiceless, thoughtless inhumanity, more confidence for parents, happier and productive handicapped citizens, and integrated constructive forces to cope with and diminish the difficulties of the physically and mentally handicapped.

3

The Child with a Neurological Handicap

Children with neurological handicaps display a wide range of behavior, which varies according to the region of the impairment in the central nervous system, the level of maturation of the individual at the time of the impairment, and the extent of the impairment. In this chapter a few of the more common handicaps that have a neurological basis are discussed—cerebral palsy, epilepsy, neurophrenia, and Strauss's syndrome.

Children with neurological handicaps are not usually segregated from other handicapped children for instruction, but rather are placed in special educational programs on the basis of their intellectual, physical, and emotional traits. Multiple handicaps are often more apparent in this than in other areas; for example, a child with cerebral palsy may be mentally retarded, have a motor and a sensory handicap, and a speech defect as well. Although diagnosis and treatment are primarily medical and psychological concerns, the educator must have a knowledge of those problems necessary for the planning of special educational services, including occupational and vocational information and training.

Many types of neurological handicap are not discussed in this chapter. One of these results from an infectious, inflammatory disease known as encephalitis. The postencephalitic child, according to Bender,¹ has mobility disturbances, intellectual defects that leave the child unable

¹Lauretta Bender, "Postencephalitic Behavior Disorders in Childhood," in *Encephalitis: A Clinical Study*, ed. by Josephine Neal (Grune and Stratton, 1942), pp. 361-384.

to organize and integrate perceptual experiences, and personality disturbances resulting in antisocial behavior. There are no accurate studies of the incidence of this disease in children; however, it appears that the age of onset is commonly before seven, and the disease is more frequently found among boys. The reader will recognize similarities between the neurological handicaps caused by encephalitis and other types of handicaps discussed in this chapter.

Although several types of poliomyelitis leave the child with a neurological disability, poliomyelitis is primarily an orthopedic difficulty, and is, therefore, discussed in the following chapter.

Another cause of neurological impairment in the human organism is injury during birth or pregnancy. Because of the limited knowledge about congenital defects, the United States Public Health Service in 1959 inaugurated a five-year, large-scale study of all factors concerning injuries and defects at birth. These defects are sometimes not apparent until a child is several years old. By observing a cross-section of 40,000 women from prenatal care until the birth of their babies, and by observing the children until they are five years of age, the investigators hope to learn more about the causes of congenital defects.

The selections in this chapter will acquaint the reader with some of the problems in the psychology, education, and rehabilitation of neurologically impaired children. Edgar A. Doll, renowned for his work with exceptional children at the Vineland Training School and at the Devereux Foundation, and perhaps best known for his development of a widely used social maturity scale, discusses in general terms the various symptoms of individuals with different types of neurological impairment. Because *Psychopathology and Education of the Brain-Injured Child*, by the late Alfred A. Strauss in conjunction with Laura Lehtinen, is still a classic in this area, the editors have included a reading by Dr. Strauss on the education and mental make-up of the brain-injured child. Stevens and Birch appraise the work of Strauss and others and make a valid case for more accurate terminology in the area of the neurologically handicapped. Perlstein looks at the child with cerebral palsy and suggests what the multiple handicaps caused by this condition imply for education and rehabilitation. The chapter concludes with a discussion, by Tenny and Lennox, of children with epilepsy.

17. Behavioral Syndromes of CNS Impairment *

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The medical profession has for many years been cognizant of behavioral correlates of neurological impairment, yet even today many professional people find it difficult to differentiate among the behavioral patterns of specific neurological handicaps. The following selection focuses attention upon the neuromuscular disturbances of three subcategories of neurological handicaps: cerebral palsy, exogenous mental deficiency, and neurophrenia.

There are many consequences of intracranial impairment. Of these cerebral palsy is currently receiving special attention, as are also exogenous mental deficiency, and those specific disturbances of perception and behavior described by Strauss, Werner, and Lehtinen, under the caption of brain injury or brain damage. To these particular categories should be added organically based convulsive seizures and organic schizophrenia. More recently a pattern of behavior reflecting encephalopathy has been described under the term *neurophrenia*.

The purpose of the present paper is to contrast the behavior symptomatology of cerebral palsy, exogenous mental deficiency and

* Reprinted and edited from a Devereux Reprint, 1955, with the permission of Edgar A. Doll and the Devereux Foundation. Because this article is a combined reconstruction of two previous articles, acknowledgment is also made to the following organizations for the granting of permission: (1) The National Society for Crippled Children and Adults, for permission to reprint the substance of "Distinction Between Neurophrenia and Cerebral Palsy," by Edgar A. Doll, in *Psychological Problems of Cerebral Palsy*, pp. 45-49 of a symposium sponsored by the Division of School Psychologists, American Psychological Association, and the National Society for Crippled Children and Adults, 1952; (2) The *American Journal of Mental Deficiency* for permission to reprint the substance of "Mental Deficiency vs. Neurophrenia," by Edgar A. Doll, *American Journal of Mental Deficiency*, 57: 477-480, January 1953.

neurophrenia. Since these are sub-categories of intracranial impairment, it will be necessary to pay some attention to the generalized symptomatology of what is commonly referred to as brain injury. No attempt will be made to review the well-known overall material on cerebral palsy and mental deficiency, and the work on neurophrenia must be considered as currently based on clinical observational exploration.

The primary nature of cerebral palsy is implicit in the title, namely, neuromuscular impairment of cerebral origin. The term is not very clearly defined with reference to age of onset, or the nature and location of the lesion or lesions. It is generally taken for granted that the palsy is a relatively severe degree of neuromuscular disability, that it has rather clearly classified manifestations, that it arises during the paranatal period or during the period of early childhood, and that it is intracranially based rather than confined to the cerebrum. While these connotations are not altogether proper, they do pervade current discussions.

For our purposes, attention is focused on the central behavior manifestations, namely, neuromuscular disturbances, or dyskinesia. While these are most apparent in the limbs, they are also evident in the trunk, the feet and hands, the neck, head, and face, and less obviously in breathing, speech, hearing, and vision. Indeed the work on cerebral palsy emphasizes the neuromuscular basis of overall behavior, both receptive and expressive, as well as its influence on the assimilation of social experience and the expression of native intelligence.

These neuromuscular symptoms are sometimes accompanied by other disabilities, namely, mental retardation of either mild or severe degree, embarrassments of sensory perception and language development, as well as distortions of behavior, the last being sometimes direct and sometimes indirect consequences. These secondary symptoms are variously compounded with the primary symptoms of palsy itself, but are not generally considered as representing a behavior symptom-complex. Consequently, the primary emphasis on cerebral palsy is concerned with the neuromuscular handicaps and their more or less direct consequences. While the secondary consequences are not unimportant or of rare incidence, they merit background rather than foreground attention.

With respect to mental deficiency, the past several decades have witnessed a marked shift in emphasis on etiology from familial to non-familial. This shift has been made possible in large measure by increases in knowledge regarding particular effects of morbid influences in de-

developmental morphology from conception to maturity. It has also been furthered by new advances in the neuropathology of reproduction and child development. And it has been fortified by the support of the parents of handicapped children who have come to a more candid acknowledgment of their problems.

This shift in interest is evident in the very language of abnormal neurology and psychology. The shift of terminology from primary vs. secondary to endogenous vs. exogenous has, as a semantic device, provided a new framework for thinking. Improved awareness of the organic preconditions of behavior, and recent research on these problems, has materially advanced new thought. Many individuals have contributed to these developments.

Articles by parents, such as Pearl Buck's *The Child Who Never Grew*, are representative of the contributions from parents. The work of Strauss, Werner, and their associates, at the Wayne County Training School, and the later work of Strauss and Lehtinen on "The Psychopathology and Education of the Brain-Injured Child," which was reproduced in the popular book by Lewis entitled *The Other Child*, represent the scientific advances.

These contributions have emphasized the importance of etiological evaluation with respect to both symptomatology and management. Important factual contributions have been made in the areas of neuropathology, behavior symptoms, and educational and social therapy. The dynamic ramifications in the field of personality are more clearly understood when organic predisposition is correlated with situational conditioning. In spite of these factual contributions, however, much of our present orientation is at the level of inference and hypothesis. Etiology is symptomatically inferred, and behavior is neurologically predicted. Obviously, there are margins of error, yet the trend of progress appears to be both sound and effective.

The term exogenous mental deficiency is used by some to include anomalies of development such as mongolism; by others to include endocrine disorders such as cretinism; by still others to include morphological morbidity such as microcephaly and hydrocephalus. But most commonly the emphasis has been on generalized central nervous system impairment. It seems to us that the terms "brain injury" and "brain damage" are less desirable than such a term as "CNS impairment," since the latter term has more general and less specific connotation. The

latter term is somewhat more professional and less frightening to the layman and the parent.

Central nervous system impairment has numerous manifestations in terms of differential diagnosis, since the consequences of the impairment constitute particular behavior complexes. Thus, if the impairment is primarily in the intracranial centers which control motor coördination, the consequences may be of the order of cerebral palsy or, perhaps more properly, intracranial palsy. If the impairment is of another order, the consequences may be categorized as organic epilepsy or, again, as organic schizophrenia. If the impairment is spotty, it may affect particular areas of behavior such as language and speech, or sensory perception, integration, and retention. And if the impairment is such as to influence the CNS preconditions of intelligence, the consequences may be of the order of mental deficiency. Finally, if the impairment is so diffused as to produce disorders in multiple areas, the consequences are evident in a behavior complex which has been identified as neurophrenia.

Neurophrenia is conceived as a behavior symptom complex which incorporates in greater or less extent and degree nearly all the detailed symptomatology of brain injury. It is the characteristic pattern of these disabilities that seems to afford a behavior syndrome which is significant for purposes of disposition and regimen. These symptoms may be indicated categorically as follows:

1. *Behavior* is "organically driven" with manifestations of hyperactivity, irrelevance, and anxiety. The overtones are those of apparent neurotic perseveration. A particular feature is the disparity between structured versus unstructured performances. The spontaneously initiated behavior reflects the higher level, better integration, rational direction, suitable relevance, and minimal conflict overtones. In contrast, attempts at structuring or controlling the behavior destroy these purposefully organized activities and produce low level, irrational, anxious, neurotic indications. It is as if the behavior pattern is atomized (disintegrated) by attempts to improve it.

2. *Posture and movement* reveal awkwardness rather than orthopedic handicap. This lack of kinetic facility is not immediately apparent, but skilled observation readily discerns a lack of precision in manipulation and movement. Neuromuscular embarrassments are readily detected in offhand tests of heel-to-toe walking, or balancing on one foot.

They may be referred for more precise orthopedic examination or may be left at the level of observation. Performance tests such as the Heath rails, the Oseretsky and Vander Lugt scales, may be used for quantification.

3. *Intellectual functioning* typically reveals marked retardation or disharmony. This is apparent in both verbal and non-verbal test situations as well as in abstract versus concrete performances. Yet the observations suggest interferences to expression rather than essential mental deficiency. These impairments are related to other behavior symptoms as enumerated below.

4. *Language* is developmentally retarded, sometimes amounting to developmental aphasia, and shows both tonal and propositional weakness, as well as poor syntactical formulation and dearth of vocabulary.

5. *Speech* is impaired in articulation, tonal quality, and inflection.

6. *Visual perception* is disturbed, although visual acuity appears generally intact. The ocular-motor aspects of perception are presumably involved as are also visual-motor translation.

7. *Auditory perception* is likewise impaired. Severe hearing loss is usually suspected but is typically a functional consequence of other psychological disturbances. When these disturbances are controlled, auditory acuity appears to be relatively intact except perhaps for weakness of pitch discrimination or tonal perception with obscurity of meaning. This suggests a sensory component for the developmental language deficiency.

8. *Rhythm* appears to be disturbed but has not yet been adequately appraised for clear symptomatology.

9. *Laterality* disturbances are common, with high incidence of left-sided laterality but also many confusions, so that the term "sidedness" is to be preferred to "handedness." One must also consider the nature of laterality fixation in terms of its etiology.

10. *Attention* is distractible, yet may also be highly perseverative. This confuses the behavior picture, especially with reference to structured versus unstructured interpretations, the child attending well spontaneously, yet poorly under efforts at control.

11. *Emotionally* the behavior is variously autistic, aggressive, destructive, or disturbed. Apathy, resistance and withdrawal, alternate with hyperactivity, aggression, and anxiety.

12. *Conduct* is dynamically unpredictable, alternating between

relatively infantile and mature manifestations. Intermittency is a common characteristic and affects nearly all behavior details. The current of behavior is accordingly "phasic." This is apparent in alternations of rapport and inaccessibility, and oscillation from affectionate acceptance to negativistic withdrawal.

13. *Learning* reflects these overall behavior disturbances in variable permutations. This applies to nearly all forms of learning whether in the area of self-help, social relatedness, scholastic endeavor, or occupational pursuits. These phases of behavior reflect the contradictory and unstable qualities of the personality as a whole.

14. *Social competence* is subnormal for both age level and measured intelligence, but "flashes" of adequacy disturb the evaluation by hinting at "frozen assets."

15. *Concept formation* is restricted and seems best developed through repetition of experience and instruction. Precept and example are not clearly differentiated nor readily assimilated.

16. *Retention* is intermittent, variable, uncertain; ritualized performances persevere; memory appears as "identification"; recall efforts are groping; rote exercise substitutes for understanding.

17. *Effort* seems whimsical and willful, with tasks egocentrically pursued, or eccentrically abandoned as if the initial *telos* had vanished. Purposive action is thus seen as compulsively continued, irrelevantly varied, or unaccountably interrupted, depersonalized, or pseudoschizoid.

18. *The integrity of behavior* is therefore not well established for any particular sphere of performance or for total adaptation. Its ambivalent qualities are confusion and bewilderment, perhaps best conceived as lacking in focus.

In exogenous mental deficiency (referred to by Strauss as "brain injury with mental deficiency") we find the ordinary signs of mental deficiency accompanied by signs of mental defects which include perceptual disorders, language and speech disorders, conceptualization disorders, and so on. Generally speaking, these patients have a degree of behavior effectiveness which is not too puzzling and which is prognostically not ameliorable to the extent that the person can be expected ultimately to manage his affairs with ordinary prudence. While there may be specific barriers to his behavioral effectiveness, and while the

effect of these barriers may be somewhat mitigated, the person is recognized as lacking in overall potential for normal social adequacy.

In the case of neurophrenia we have a condition which simulates mental deficiency at the level of expressive behavior, but which offers hope for amelioration and ultimately adequate social competence. In this condition the organic impairment affects nearly all areas of self-expression with consequent lack of integration and accompanied by frustration and by resistance to ordinary methods of developmental training. In place of relatively specific areas of impairment such as are apparent in cerebral palsy, aphasia, epilepsy and schizophrenia, the neurophrenic patient has a more generalized involvement. And whereas the other categories of brain injury may overlap in particular areas, in the neurophrenic substantially all areas are concomitantly affected. In some instances the extent of symptomatic concomitance may be such that the distinctions are difficult or impracticable, and the categories must be described as mixed and overlapping. For simplicity, however, we deal here only with the relatively specific groupings.

The resemblances among these differentiable differences constitute a frequent puzzle to the mental diagnostician. The expressive retardation of the neurophrenic which resembles the maturational retardation of the mentally deficient is contradicted, for example, by many indications of average normal potential, assuming that the patient can be "reached" by successful methods of education and therapy. Likewise, his autistic behavior, with indications of interpersonal inaccessibility, yields gradually to well directed therapy, so that the patient can be brought from apparent lack of social contact to effective social participation.

With this orientation we perceive the need for discriminating among the different manifestations of different sites and degrees of CNS impairment which are currently referred to as exogenous with the specific implication of brain injury. While we cannot deny that familial mental deficiency may be accompanied by some degree of central neuropathology, it seems apparent that the essential characteristic of familial mental deficiency is morphological hypoplasia rather than pathological dysplasia. That is to say, the organic basis of familial or endogenous mental deficiency is essentially due to deficiency of normal neurological development, whereas non-familial or exogenous mental deficiency reflects impairment as well as lack. From this standpoint the endogenous

feeble-minded are mentally deficient but without mental defect, whereas the non-familial or exogenous feeble-minded are mentally deficient and also mentally defective. In other words, the endogenous show simple want, whereas the exogenous show both want and distortion. This implies that we might do well to be cautious in using the term "mentally defective" when we mean only "mentally deficient."

Similarly, in cerebral palsy the neuromuscular embarrassments are relatively severe. While responsive to therapeutic overtures (e.g., surgery, physical therapy), there is seldom complete recovery except for the milder degrees of involvement. In neurophrenia, however, the major motor indications are of the order of awkwardness and clumsiness indicative of minor degrees of balance and coordination. These manifestations appear to respond favorably to corrective physical education and to therapeutic education assisted by homeostatic growth processes.

In other words, the prognosis for neurophrenia is typically favorable even though it may not be possible to specify the ultimate degree of attainment; whereas, in the case of mental deficiency, the prospect of ultimately favorable attainment is pessimistic rather than optimistic.

In spite of the complexity of the behavior indications, the global aspect of neurophrenia is relatively simple. Once the clinician is alerted to and familiar with this category, the recognition of the condition is almost as simple as that of mongolism. But just as we recognize mongolism without being able to offer satisfactory scientific proof, so the recognition of neurophrenia is easier than its professional validation.

For the time being, the concept of neurophrenia is still at the level of exploratory clinical observation, hypothesis and inference. The methods of measurement for validating the clinical observations in terms of measurement are still, for the most part, unsatisfactory. Likewise, the social management and educational therapy, as well as the medical and psychiatric treatment of these patients, is largely at the speculative and experimental stage. From present indications it appears that the classical methods of Itard and Seguin afford the most immediate promise in the younger patients. The older patients seem to reflect appreciable morphological amelioration, and this may be capitalized for purposes of management and treatment by programs suggested directly by the symptomatology.

From these considerations it is apparent that (1) the major symptom of cerebral palsy is severe neuromuscular impairment, sometimes

specific and sometimes ramified, (2) the major aspect of mental deficiency is incurable essential social inadequacy, with exogenous symptoms of organic impairment, and (3) the picture of neurophrenia is one of overall ameliorable retardation and behavior disturbances. Similar distinctions may be drawn between neurophrenia and other behavior symptoms related to intracranial impairment as indicated previously, namely organic epilepsy, organic schizophrenia, and specific developmental disorders as perception, language, and personality. It is anticipated that these distinctions will be developed more specifically in later work. In contrasting cerebral palsy and exogenous mental deficiency with neurophrenia, we might say more simply that (1) whereas in cerebral palsy the motor impairments are primary and other involvements secondary, and (2) in exogenous mental deficiency the intellectual impairment is primary and the social and other accompaniments secondary, (3) in the case of neurophrenia, the overall involvements are primary and the associated specific disorders are secondary.

These distinctions have obvious implications for therapeutic management, but since these are so readily apparent to the informed clinician, their exposition may be, for the moment, left to later consideration.

18. The Education of the Brain-Injured Child *

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This article by the late Dr. Alfred Strauss presents some provocative ideas regarding cerebral palsy and brain injury in children. Some of the questions raised by Dr. Strauss are: Is the cerebral-palsied child free from damage in the nonmotor areas? Is the mentally retarded brain-injured child free from defects in the

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neuromotor system? He then discusses some of the basic differences among brain-injured children and their implications for a program of remedial education.

An article was published in 1933¹ setting forth the difference between the exogenous and the endogenous types in mental deficiency. In the ensuing years various other papers were published in which the term "exogenous type of mental deficiency" described a mentally retarded child who came from a normal family, who had suffered an injury to the brain before, during, or after birth, whose psychological make-up showed characteristics not found in the endogenous types of mental deficiency or in normal children and for whom special educational methods were devised based upon our knowledge of this child's peculiar psychological deviations.

Gradually and erroneously the term "exogenous child" tended to become synonymous with the term "brain-injured child." In the course of our research we found these peculiar psychological characteristics in various degrees in other children who had suffered a brain-injury, such as cerebral palsied children, deaf children, children with impairment of sight, children with behavior difficulties, and children with learning disabilities—not only mentally retarded children, but also children with normal intelligence quotients as measured by routine and standardized psychological tests. We, therefore, now use the term "brain-injured child"² for all children who come from a normal family, who have suffered injury to the brain before, during or after birth, who show characteristic psychological deviations and in whom educational improvement can be achieved by methods and procedures developed on the basis of these characteristic psychological deviations, irrespective of whether a classification would place the child as being normal or below normal or being mentally retarded on the intelligence scale as measured by intelligence tests.

We would classify these children as: brain-injured child with mental

¹ Alfred Strauss, "Beitrage zur Einteilung, Entstehung und Klinik der Schwersten Schwachsinnformen," *Arch. f. Psychiat.*, 99: 693-708, 1933.

² A. A. Strauss and L. E. Lehtinen, *Psychopathology and Education of the Brain-Injured Child* (Grune and Stratton, 1951).

R. S. Lewis with A. A. Strauss and L. E. Lehtinen, *The Other Child, the Brain-Injured Child* (Grune and Stratton, 1951).

retardation; brain-injured child with motor handicap (cerebral palsy); brain-injured child with behavior disturbance, and so on.

I shall attempt to discuss the brain-injured child as outlined by us in comparison with the cerebral-palsied child as described in the literature. ✓

Physicians have been primarily interested in the investigation and treatment of cerebral palsy as a neuro-motor syndrome. Beyond this interest, however, it has been recognized that psychological complications, particularly mental inadequacy, may be produced by the same trauma. In the cerebral palsy patient afflicted with general mental deficit or mental retardation, the intellectual incapacity has been attributed to the mental deficiency as a quantitative lack of capability; the irregularities of behavior and personal-social development have been attributed to the mental involvement and to the frustrations imposed by mental and physical handicaps. In the cerebral-palsied child without mental retardation, the academic disabilities and behavior irregularities have been explained as exaggerated individual differences or as reactions to frustrating limitations imposed by the motor handicap.

If one is content with this analysis of the psychological problems of cerebral palsy, then the therapy or supportive treatment must be sought in the field of sympathetic, non-competitive, progress-at-your-own-pace education and in the field of mental hygiene. To these fields I do not wish to add. If one is dissatisfied, however, and concludes that such an approach may answer only part of the problem, then our educational methods may open a new and successful avenue.

Since the two syndromes, cerebral palsy and brain injury in children, both arise from injury to the brain, that is, from the same cause, to the same organ, and at the same time of growth, where are the differences?

The nervous system is differentiated into two systems, the peripheral and central, in which the brain is a part of the central nervous system activating neuro-motor, sensory and mental processes. It is less well known, however, that in the analysis of neurological or mental defects in brain injury, the approach used belongs to two different branches of medical science. Disturbances of neuro-motor and sensory action systems belong in the field of patho-neuro-physiology. The irregularities produced in mental processes belong in the field of patho-neuro-psychology.

This sharp separation is required for scientific and methodologically correct analysis and does not exist in life. However, to understand clearly the difference between the cerebral-palsied child and the brain-injured child, this distinction should be emphasized. Since the brain is in larger part an organ of the mind, the neuro-physiological processes in their sensory and motor aspect sustain and express only the smaller part of the brain function. We may, therefore, say that the functioning of the brain may be separated into more neuro-physiological, less mental and more neuro-psychological, less neurological processes.

For example: those articulatory functions of speech which are partly localized in the brain are to be considered more peripheral than the central "speech" function which we call language.

The psychological process of perception, whether visual, auditory, tactual or otherwise, is a central function of the brain in contrast to the sensory processes like vision and audition, which are peripheral, although all are localized in the brain. Reasoning, thought and emotion are probably central functions of the brain without counterparts in the periphery of cerebral function.

Since damage to the brain is most often non-selective, it is valid to ask whether the cerebral-palsied child is free of damage in non-motor areas of the brain or whether such damage is rendered inconspicuous because of the overpowering aspect of the neuro-motor affliction. This is the reverse of the question, whether brain-injured mentally retarded children are free of defects in the neuro-motor system, a question which many investigators have answered negatively. In our opinion, the following summary of the relationship of these areas of disturbance in regard to cerebral palsy can be made:

- (a) cerebral-palsied child without mental or psychological complications—a medical problem.
- (b) cerebral-palsied child with organic mental involvement, ranging from behavior and learning difficulties to mental retardation—a medical, educational, psychological problem.
- (c) cerebral-palsied child with secondary psychological reactions caused by maladjustment resulting from the handicap—a medical and psychological problem.
- (d) cerebral-palsied child with organic mental involvement and with secondary psychological reactions—a medical, educational and psychological problem.

Since my topic is education, I speak from now on of brain-injured children, that is, of children with organic mental disability with or without cerebral palsy, with or without decrease in I.Q.

In our own researches, we have so far differentiated the following basic deviations in the mental make-up of brain-injured children:

- (a) disturbances in perception,
- (b) disturbances in concept formation (thinking and reasoning),
- (c) disturbances in language,
- (d) disturbances in emotional behavior.

In order to carry out the remedial education of the brain-injured child, these basic disturbances are analyzed as separate fields of functioning. It should be emphasized that a comprehensive approach must take into account the overall peculiar mental make-up of the brain-injured child which is the result of damage to the brain as a whole, as a total organ. It is highly probable that no damage occurs to the brain which does not alter or damage some or all of these basic functions. However, very often our methods of examination are not refined enough to discover more than the gross or extreme deviations of injury.

We shall limit our presentation to disturbances of one of these central functions—perception. Let us first ask, "What is perception?" The shortest answer is: perception is meaningful sensation.

Sensation, the activity of the sense organs in response to external stimuli such as light, sound and impact, incites to action areas of the brain whose function is to identify the stimulus in terms of experience. Thus we differentiate between daylight and darkness, persons and objects, the bark of a dog and the cry of a cat. In the brain, sensation matures into meaning. It is the contention of some psychologists that our ways of perceiving are inherent and universal, since the functioning of the human brain is inherent and universal.

One of the basic characteristics of perception is that it occurs immediately—completely and unanalytically. All at once—nothing first. A photograph of someone we know is recognized at a glance without examination of details, such as features. A musical phrase is identified in its entirety, not note by note.

In normal perception, the whole is recognized at once and its parts in relation to it and to each other. In normal recognition, we see the total figure. The process of integration is immediate, complete. "When it is perceived, the whole becomes more than simply the sum of its

parts. It becomes a meaningful configuration, capable of generating a response by the whole organism."³

When you are driving at night and see two lights coming toward you, at a certain distance apart and a certain distance from the road, you are seeing two lights but perceiving a car. Has it ever occurred to you how startled you were when these two lights suddenly diverged, but on coming closer you recognized that they were two motorcycles?

While driving an automobile, we see the red light flash on the automatic traffic signal and we stop. The stimulus, the sensation, the perception and the reaction are as close together as muscular coordination can make them.

In normal perception, the whole is perceived as a foreground figure against a background. We do not give equal relevance to myriad, simultaneous sensations we receive in any situation, from standing in a room filled with people to crossing a busy intersection. Every activity is performed against a background of varying visual, auditory, kinesthetic or tactile perceptions.

Brain-injured children who have perceptual disturbances are not able at times to see the whole. Instead, they are transfixed by one of its parts which leaps into the foreground and reduces the other parts to background status. Hence they do not receive the same perceptual image from the same stimuli as the normal child. That is one reason they react differently or—mistakenly. Specifically, they may not be able to segregate background from foreground, nor single out the figure from its components.

The brain-injured child may perceive something altogether different from that of the normal person—from the same set of visual stimuli. And similar irregularities due to brain injury may occur in concept formation, language and emotional behavior. Disturbances of one of these central processes usually influence detrimentally the functioning and development of the others. Or the other processes may struggle ahead at a near normal rate to create a disparately functioning person.

We have indicated that normal persons perceive the whole, "all at once and nothing first." But the brain-injured child does the reverse. He sees something first—at once. Only later may he see the "all."

In this way, his attention is caught by meaningless or insignificant detail. He concentrates on the hairpin instead of the hairdo, the button

³ Quoted from R. S. Lewis with A. A. Strauss and L. E. Lehtinen, *loc. cit.*

instead of the coat or the brick, let us say, instead of the wall. In school, he appears to be unable to concentrate on anything and this is characteristic of his behavior at home. It may be said of him his span of attention is short.

Actually, he concentrates too well. He pays attention to everything. Any minor detail distracts him and he focuses upon it. He is unable to do what normal children do automatically—rule out the unessential stimuli. All stimuli have equal valence to him, equal power to attract him. He is extraordinarily sensitive to a great variety of stimuli and what appears to be inattention is in reality preoccupation with many, unrelated and unessential details.

"These perceptual disturbances become manifest in the general behavior of the brain-injured child, which is compounded of his reactions to stimuli. Thus, the different behavior of the brain-injured child becomes a symptom of a condition *one cannot see, but which is just as crippling to his performance in normal society as motor paralysis.*"⁴

It should be emphasized again that a more diffuse and extensive damage will produce disturbances in more than one basic function with the result of incoordinate, erratic, irregular functioning not necessarily to be labeled mental deficiency.

The remedial education or re-education of brain-injured children must have as a central concern these defects of basic mental processes. It should focus upon the child from three views—

- (1) normal growth patterns of basic mental processes, i.e., perception, reasoning, language, and emotional behavior.
- (2) organic defects of basic mental processes.
- (3) disparity of growth, i.e., normal development in some function, defective development in others, resulting in specific individual disturbed patterns of part or all basic mental processes.

Such education can only be achieved by a thorough psychological analysis of the patient in respect to the defective basic mental processes and to the normal pattern already achieved. The educational methods follow several principles of which I demonstrate only two:

- (1) Readjusting normal growth patterns by regressing to lower genetic levels and then progressing to higher ones.

⁴ Quoted from R. S. Lewis with A. A. Strauss and L. E. Lehtinen, *loc. cit.*

For example: A brain-injured child, not motorically handicapped, was unable to learn to count objects in a series by pointing to blocks and saying, one, two, three, four, five. This practice had been given for weeks without avail. By letting him count while grasping beads hanging from a wooden frame he was able after two days to count serially by pointing with his finger to the blocks. The reason: genetically, grasping an object appears earlier in neuromotor and perceptual development than pointing to an object.

- (2) Directing the organization and integration of mental processes by cueing the stimulus.

Some brain-injured children have great difficulty in learning to perceive the number symbols. We found that they may easily confuse the vertical stroke of Number 1 in Number 4, or the upper half of Numbers 2 and 3, the lower half of 3 and 5, and the lower half of 5 and 6. By using different colors for these parts, the child learns these numbers quickly and can recognize them when presented as black or unicolor numbers in writing or print.

These samples have been selected from the field of perceptual-motor learning and illustrate principles and methods which cannot be discussed here in detail. Briefly, the method applied to this and to other psychological fields requires an analysis of the underlying defect in basic mental processes and a reduction or readjustment of these mental irregularities by approaches based upon the analysis.

To conclude, some practical questions of the education of the brain-injured child can be considered.

At which age should we start?

Our own methods are developed sufficiently so that we can begin at a pre-primer school level. It was our earlier idea that our methods should be extended to children of younger chronological and mental age levels. We have found, however, that the training of very young children becomes prohibitively expensive and that good results in the training of social behavior, so necessary at these ages, is effectively achieved by placing *one* brain-injured child (of 60 I.Q. and above) in a small group of six to ten normal nursery or kindergarten children. Little resistance has been met from the teachers of these groups when the peculiarities of the brain-injured child have been explained to them. The results so far are encouraging.

Education for the brain-injured child in the primary grades becomes of critical importance for his later achievement. The quality of it can literally make or break him, and we cannot overstress the importance of regarding him as a special case, a special challenge.

Learning does not obviate his perceptual and conceptual difficulties. It gives him the means, however, to organize himself and to face reality with some assurance and independence.

We cannot say what is the potential learning ability of a brain-injured child, but we also cannot accurately indicate the potential of normal children. In the brain-injured group, the intelligence can be within the normal range. Brain-injured children of normal intelligence may go to college, just as normal children may. They may not progress beyond the eighth grade. Neither may many normal children.

There are, however, some children who despite all our efforts do not respond to the program. Early in life, the brain-injured child shows signs of a handicap which cripples him severely, whether or not his muscles have been affected. Unless he is treated as a special case, his education is not likely to be successful in enabling him to compensate for his handicap. The nature of his deviation from normal society requires a method which takes his disability into account. When this is recognized by parents and teachers, the child then has an even chance to fulfill himself.”⁵

⁵ Quoted from R. S. Lewis with A. A. Strauss and L. E. Lehtinen, *loc. cit.*

19. A Proposal for Clarification of the Terminology Used to Describe Brain-Injured Children *

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"Brain-injured" and "exogenous" are terms used in the previous articles. Stevens and Birch question the usefulness of these concepts and propose a term which they feel can present more accurately the phenomena described earlier by Strauss.

Educators, psychologists, social workers, psychiatrists, and others concerned with the study of child behavior have become increasingly aware of the existence of certain children with unusual and bizarre behavior who do not fit easily into existing classification schemes. Research in recent years has thrown some light on this problem, and evidence is rapidly accumulating which points to central nervous system impairment as the basis for the problems of many children.

The work of Goldstein (4),¹ Bender (2), Doll (3), and Strauss and Lehtinen (8), has focused on these problems. The work of Strauss and his associates has come to be synonymous with the term "brain-injured." As is so often the case, certain descriptive terms may prove to be inadequate in light of new developments in philosophic position

* Reprinted and edited from *Exceptional Children*, 23: 346-349, May 1957, with the permission of the Council of Exceptional Children, Godfrey D. Stevens, and Jack W. Birch. A reprint of this article is available from the Council on Exceptional Children.

¹ Numbers in parentheses refer to items in the Bibliography at the end of this article.

and the results of research (1, 4, 6). It would appear that the term "brain-injured" has become a specific scientific term and is no longer of value in light of what is known about the sequelae of central nervous system impairment.

The term "brain-injured" has been used to describe a wide variety of conditions in the past 10 years, and as a consequence the term is rapidly becoming of questionable value as a means of describing the child with disorders of perception and other related central nervous system sequelae. Wortis (9) points out that "There is no brain-injured child," but only a variety of brain-injured children whose problems are quite varied and whose condition calls for far more refined analysis than some of the current generalizations on the brain-injured child provide.

It is the purpose of this discussion to suggest a term that can more accurately describe the phenomena reported by Strauss with a view of clarifying the situation for both scientific purposes and for practical clinical application. The writers are indebted to Shulamith Kastein for stimulating interest in this problem.

The work of Strauss and his associates suggests that there does now exist a child with specific characteristics that have been associated with damage to the brain (8) and (9). There is some controversy on this point (3). The presence of disordered behavior is not always evidence of brain damage, and the existence of brain damage does not necessarily imply the presence of certain kinds of behavior (3, 6).

The term "brain-injured" as used earlier by Strauss (7) had to do with the problem of children who were defective due to damage to the brain. Later he became interested in what might be thought of as "non-retarded brain-injured" children—children who did not suffer from intellectual limitations as a consequence of a defective brain. Earlier Strauss virtually eliminated the motor handicapped child from his population. However, more recently he has included the motor handicapped child (8).

The term "brain-injured" as used by Strauss in his early writings (7, 8) described children with perceptual disturbances, learning disturbances, disturbances in thinking and disturbances in personality. These children had a tendency to persevere; to be hyperactive; to function with a rigid, stereotyped kind of behavior; to show evidence of motor disinhibition and a tendency to pay attention to details rather than wholes. These conditions have been observed in children and

adults with verifiable evidence of damage to the central nervous system. This behavior has also been seen in individuals who show no signs of neuropathology.

Historically, early workers associated the disorganized and unpredictable behavior of certain mentally retarded children with similar behavior observed in adult soldiers who sustained brain injuries. The mental retardation and disorganized behavior in the adults was presumed to be caused by the defect in the brain resulting from the wound. Similar behavior in mentally retarded children, even though there was neither clinical nor developmental historical evidence of injury to the brain, was thought to be sufficient reason for attributing the etiology of the retardation to a defective brain. The presence of disordered behavior in individuals without diagnosable lesions made it possible to make an etiological classification on the basis of an inferential diagnosis.

Strauss introduced the term "brain-injured" into this country just before World War II. It was based on some work he had done in Germany (6). The term "gehirnverletzt" was widely used in Germany and was literally translated into English as "brain-injured." Other substantially synonymous terms used in this country have been "exogenous (7)," "organic," "pathologic," and more recently "neurophrenic (4)."

The term "brain-injured" has certain etiological implications. The term probably came into being because most of the early workers in Europe who were aware of this problem were chiefly medical workers. Since it is common practice to explain the etiology of various pathologies, it became common to refer to this condition from the point of view of the etiology. Reasons for the quick acceptance are suggested by Wortis (9). The expression was used to explain the basis for the disorders of mentality, behavior, learning, and the other abnormalities in childhood associated with this group of problems. This was an oversimplification with serious and far-reaching consequences. Epilepsy, cerebral palsy, mental retardation, certain kinds of sensory handicaps, the asphasias, and more recently schizophrenia may be attributed to damage to the brain. Thus it becomes apparent that there is a need for avoiding an etiological term in describing behavior which is really part of a condition or a symptom complex in which the actual etiology may be unclear.

Sarason criticized the endogenous-exogenous concept some years ago when he used it in relation to problems of mental retardation (6).

More recently, H. Birch has criticized the validity of the concept of "brain damage." He concludes:

- "1. That there are individuals with brain damage.
- "2. That we have instruments for examining the behavior of these individuals.
- "3. That these instruments are often inadequate for the detection of modification of behavior produced by this damage.
- "4. That we have to produce better methods of approaching analysis of behavior." (3)

While he was somewhat pessimistic and negative in his review of the work done until now, he felt that here was a field for fruitful scientific endeavor. Wortis recently questioned the validity of the use of the term "brain-injured" and suggests that it is inappropriate.

The term "brain-injured" as used in its generic sense in medical nomenclature would mean exactly what it implies, "damage to the brain." This in no way tells what the consequences of such damage to the brain may mean in terms of specific behaviors. The sequelae of brain damage are often disorders such as epilepsy, mental retardation, cerebral palsy, and its related conditions, personality disorders, or combinations of these. The amount of brain tissue involved and the locale of the lesions seems to determine to a large degree the behavioral significance of such damage.

The term "brain-injured" then can only compound confusion if it is used to describe the symptom complex associated with any of the conditions mentioned above, since it was intended to be an etiological concept, which can account for a number of other conditions.

Another weakness in using an etiological concept as a basis for this description grows out of the fact that a therapeutic approach is difficult or impossible to construct when we know only the presumed cause. In general, under present conditions the therapeutic pedagogy which will palliate the problems associated with central nervous system impairment can best be built on a thorough understanding of the overt behaviors making up the symptom complex or syndrome. When children are multiply handicapped it is virtually impossible to develop appropriate teaching procedures based on the presumptive knowledge that the child is "brain-injured." In actual practice, teachers and clinicians tend to utilize their clinical sense in developing suitable procedures built on

what they observe in the child, rather than on the notion that the child has an injury to the brain. In light of present knowledge the very nature of the physiology of nerve tissue brings the psychologist and educator to a method of symptom reduction rather than an etiological therapy.

In looking through the literature, we find the term *perception* frequently used to describe the condition associated with learning disturbances in children known or thought to be brain-injured. It has been suggested that the defects in perception tend to account for practically all the behavioral disturbances associated with the problem. That is to say, if an individual does not perceive his environment normally he cannot make an adequate adjustment to his world and, therefore, will tend to react in an unusual manner. Thus he will have difficulty in learning consequently, or difficulty in adjusting. There are several leaps of verbal logic in this analysis which are only vaguely supported by research evidence. Much more work will need to be done before differing kinds of perceptual experience can be firmly linked to variations in everyday life behavior and to central nervous system lesions in anything approaching a cause-and-effect way.

It would seem desirable to clarify the problem for the purposes of scientific integrity and to reduce the confusion growing out of the semantic problems of clinical language. Strauss's notion of the "brain-injured child" describes disturbances in three broad, general groups, i.e., disturbances in thinking; disturbances in perception; and disturbances in behavior. In detail, the child with central nervous system impairment may show any or most of the following observable characteristics:

1. Erratic and inappropriate behavior on mild provocation.
2. Increased motor activity disproportionate to the stimulus.
3. Poor organization of behavior.
4. Distractibility of more than ordinary degree under ordinary conditions.
5. Persistent faulty perceptions.
6. Persistent hyperactivity.
7. Awkwardness and consistently poor motor performance.

Any child who presents the above symptom complex can be said to exhibit the Strauss Syndrome. The child may or may not be mentally retarded. There is no implication as to the cause or causes of the child's

behavior when he is said to exhibit the Strauss Syndrome. Rather, the way is left open to seek the cause or causes of the symptom complex.

It is therefore suggested that the term "Strauss Syndrome" be used to describe this symptom complex. It is our belief that science would profit by this course. First, it would pay tribute to a man who devoted his life to the study of the significance of central nervous system impairment and who tried to develop appropriate procedures to mitigate the impact of lesions in the brain on the adjustment of the child. Second, it would be consistent with past scientific practice to isolate a symptom complex or syndrome by attaching to it the name of the man who helped most to identify the problem.

Third, much confusion in scientific thinking would be eliminated by avoiding the unfortunate practice of referring to children as though their behavior were entirely dependent upon lesions in the central nervous system.

Summary

In view of the confusion growing out of the inappropriate use of the term "brain-injured" to describe a group of children with mild-to-severe perceptual disturbances and disorganized behavior, it would appear that a new term would be of value for both clinical practice and theoretical validity. There is still much confusion regarding the existence of a clinical entity and evidence up to this point is drawn from clinical impressions.

In order to clarify this issue, we have attempted to rationalize the present situation. In general, there are at least four objections to the use of the term "brain-injured."

1. The term is an etiologic concept and does not appropriately describe the symptom complex. This is important because the condition which prevails is viewed in terms of symptoms rather than etiology.

2. The term is associated with other conditions some of which have no relation to the symptom complex commonly referred to as "brain-injury."

3. The term does not help in the development of a sound therapeutic approach and in practice teachers and clinicians tend to approach the problem in terms of symptom reduction.

4. The term is not suited for use as a descriptive one since it is essentially a generic expression, the use of which results in oversimplification.

The term "Strauss Syndrome" is therefore suggested to be used to describe the kind of child who does have evidence of defects in perception and related disorders. The recommended term pays tribute to a great worker and more clearly isolates the phenomena in terms of the symptom picture which Strauss has worked with for many years.

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20. The Child with Cerebral Palsy *

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The first article in this chapter introduced the reader to some behavioral manifestations of cerebral palsy. Additional thoughts regarding this affliction were presented in the selection by Strauss. In this article, Perlstein considers cerebral palsy with its associated defects and discusses the problems of rehabilitation and education.

Cerebral palsy is a condition characterized by paralysis, weakness, incoordination, or any other abnormality of motor function due to involvement of the motor-control centers of the brain. The term covers a whole group of related conditions; it does not delineate a specific condition any more clearly than the term "lung disease" indicates whether one has pneumonia, tuberculosis, bronchial asthma, or lung cancer.

Surveys have shown that the incidence of cerebral palsy is about one in 200 births. The prevalence is about 140 cerebral-palsied youth under the age of 21—the most significant age group for schools—per 100,000 population.

There are three major types of cerebral palsy, plus several less-frequent conditions. *Spasticity* is characterized by involuntary tightening of the muscles which slows down motion and makes it ungainly and stiff. *Athetosis* is characterized by involuntary, purposeless muscle movement. *Ataxia* is characterized by lack of balance.

Since cerebral damage is generally not limited to a single area in the brain, many associated defects are found in addition to the motor involvement.

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Defects in the eye occur in approximately 50% of cerebral palsy. Since the child has so many barriers to the learning process, it is important to correct even some of the minor defects in vision that might be left uncorrected in an otherwise normal child.

Loss of hearing is a frequent concomitant of cerebral palsy. Partial hearing loss may frequently be overlooked because of the tendency of the child to learn lip reading spontaneously. Not infrequently, a perceptual hearing loss may be so marked as to simulate deafness.

Speech disorders are the most common associated defect in cerebral palsy, occurring in over 70% of all cases. Speech disabilities may be due to lack of control of the tongue, the lips, or the breathing mechanism. There may also be speech defects secondary to hearing loss or to perceptual defects in hearing.

The correlation between motor and mental involvement is not as great as one might expect. Thus, there may be total physical involvement with normal intelligence or a relatively small degree of physical involvement with serious defects of intelligence.

It is probable that even the child whose intelligence is normal may have suffered some intellectual deficit, since it is not possible to know what his intelligence would have been had he not had cerebral palsy. It is not surprising that the average IQ of cerebral-palsied children with "normal" intelligence is generally less than that of their unaffected siblings.

A high correlation exists between educability and the absence of convulsions in cerebral-palsied individuals. Convulsions may interfere with therapy and the educational program; it may become important to control them before other forms of treatment are instituted.

Emotional disturbances frequently play a more important role in handicapping the cerebral-palsied individual than do physical defects. As a result of his physical incapacity, the child may not have opportunities for ordinary social experience, and thus for normal social maturation. In fact, emotional difficulties of the young child may cause "mental contractures" which may color and change the child's reaction to his environment for all time.

There are many other associated physical and mental defects in cerebral palsy, among them being nutritional deficiencies and a high incidence of dental caries.

Rehabilitation, rather than cure, is the aim of treatment in cerebral

palsy. The greater the physical involvement, the less should be the mental involvement, to achieve the following general goals:

[1] The individual should be capable of locomotion either independently or with crutches or other apparatus; [2] he should be capable of selfcare and selfhelp in eating, dressing, toileting, and similar activities; [3] he should have an effective method of communication, either by speech, writing, or other means; [4] his appearance should be as normal as possible; [5] he should be able to earn money or its equivalent in competitive industry, in a sheltered workshop, or by selfemployment; [6] he should be able to employ his own spare time in selfsatisfying avocations and in social contacts.

To achieve these goals, it is necessary that the child be adjusted to his environment and to acceptance of his handicap. If this attitude can be attained, then many of the irritants which interfere with therapy are removed.

The therapy of cerebral palsy is a long, arduous, involved process, with many technical aspects, requiring the cooperative efforts of a group of medical and allied specialists. The child should be helped not as one who has just a motor or sensory defect, but as an *individual*. Good physical and hygienic care as well as psychological preparation should precede the special technics employed in motor re-education.

The modalities of special therapy include *physical therapy* for improvement of locomotion, stretching of contractures, muscle re-education and strengthening, and improvement in balance. *Occupational therapy* is of a functional nature to teach such selfhelp skills as feeding and dressing technics, by improving reach, grasp, and finger skills.

Speech therapy is given to improve the ability to communicate either by speech or by other methods. The speech therapist also helps in developing proper habits of breathing, chewing, and swallowing, and in improving social graces by eliminating drooling and grimacing. He gives auditory training for those with hearing defects.

Ideally, education of the cerebral-palsied child should be carried out by teachers with special training and special facilities and in association with technicians able to administer other specialized skills. Since there are no two cases exactly alike, care should be as highly individualized as possible. Usually it is necessary for the teacher or therapist to make an inventory of the child's abilities and disabilities and to work out an individualized program.

In teaching reading, both visual and phonetic methods should be tried. Defects in space perceptions may be manifested by difficulties in arithmetic, in which event a child may be taught addition and subtraction better by use of an abacus than by ordinary methods. In other words, success in education often depends upon the teacher's imagination and ingenuity.

The deficit in learning in cerebral palsy is not uniform in all areas. Intelligence tests usually reveal an uneven performance and wide scatter. A child may not be able to give an immediate answer to simple problems until communication skills are developed; allowance must be made for this communication lag and for difficulty in writing.

The cerebral-palsied child often has a short attention span and is easily distracted. Noises, movement, and changes in light may aggravate his abnormal motor patterns. Elimination of extraneous sensory stimuli may often be effected by use of pinpoint glasses to restrict the field of vision, placing the child facing a wall or corner, and cutting down on auditory stimuli by use of ear plugs and soundproof rooms.

Occasionally the control of extraneous motion by restraint may improve function in the hands or feet. Practically, this can be attained by use of desks and chairs which fit the body contour or by the use of bracing, arm restraints, or stirrups or straps to keep the feet firmly on the floor. The decisions as to whether these various methods will be useful depend largely upon medical opinion.

In actual practice the teacher will include many of the types of therapy mentioned above in one activity. For example, in teaching reading and in general classroom discussions, speech and communication skills are taught. Walking to the blackboard or playing kindergarten games may be a form of gait training. Writing or cutting out paper dolls may be a form of training in hand use. A teacher frequently may be more successful in obtaining speech, walking, or hand function from the child because emphasis is directed away from the motor skill desired, so that the child is less tense.

A teacher who deals with a cerebral-palsied child should have some orientation in the aims and achievements of the various therapies so that he can coordinate his efforts with those of the therapist if a therapist is available. Although the doctor may direct the over-all program, it is actually the therapist and the teacher who, with the parents, have the most intimate and sustained contact with the child. The doctor may see

the child three or four times a year for check-ups and for suggestions regarding therapy, but it is the teacher, the therapist, and the parents who will carry on 95% of the work.

The physical therapist performs not only a specific service in the motor re-education of the child, but also an equally important though non-specific service of a psychological nature. The teacher, likewise, is more than an "educational therapist," since his contributions also have psycho-therapeutic value.

A cerebral-palsied child needs a teacher who is a warm, understanding person with genuine interest in the welfare of individual children. The teacher should be welladjusted himself, and should have some training in child development and mental hygiene. The cerebral-palsied child is usually extremely sensitive and will react to nagging, petulance, scolding, or rejection on the part of his teacher by withdrawing and refusing to perform.

The identification of the child with his teacher, his desire to please him, and his feeling of complete acceptance results not only in educational and emotional improvement, but also in motor improvement. The child who successfully learns how to read may often improve in walking by virtue of the fact that his tensions are decreased.

In the classroom the teacher should see that the handicapped child has an opportunity to enjoy normal experiences as do his nonhandicapped classmates. The normal child gets out to play in the snow, to make and throw snowballs, and to feel snow down his back. These are all experiences a handicapped child may be deprived of, since he is often kept indoors during cold weather for fear of his catching cold, or may sit in a chair all day handling only objects which his mother places within his reach.

In teaching a child, there is more than teaching the Three Rs. The small daily experiences are highly significant and make up the necessary background for education and for socialization.

In summary, the teacher of the cerebral-palsied child must employ all the methods of teaching the normal child. In addition, there are special and highly individualized technics which must be used in certain cases. Ingenuity and inventiveness, as well as patience, are essential. The problem, if considered provocative and interesting rather than difficult and frustrating, becomes a real challenge to the teacher.

21. Children with Epilepsy *

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Although a large percentage of epileptic seizures can be controlled with medication, epilepsy is still shrouded in mystery. Because the incidence of the disease is relatively high, teachers should be aware of the nature of the problem and its implications for education.

Most teachers have had no direct contact with an epileptic child. Many others have encountered such children without being aware of them for children often keep their condition a carefully guarded secret.

Some teachers have had the shock of witnessing for the first time one of their pupils having a major seizure. They had no knowledge of what to do for the child or how to reassure other pupils who were reporting the teacher's own fear and anxiety.

As with all exceptional children, it must be kept in mind that a child with epilepsy is first a child. He differs from other children only in that he may have occasional convulsions. If he develops personality differences, it is because of his uncertainty and fear regarding the attitude of others. If, however, he is accepted by his associates and permitted to live a normal life, to secure an education, and to grow and

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develop as other children, he has every prospect of becoming a self-supporting, productive citizen.

Unfortunately, the general public, including teachers, is not adequately informed about epilepsy. Many attitudes unconsciously reflect ancient beliefs which attributed seizures to demons and urged that men placate the gods and shun the person with epilepsy. We are no longer *consciously* influenced by such attitudes.

The medical truth about epilepsy is that it is not serious or crippling, unless made so by those adults with whom the child comes in closest contact—parents and teachers. Medically, it is an illness which carries negligible risk and an excellent chance for control with treatment.

There is the case of the eight-year-old, who was having an attack every five minutes when she was first seen. She would blank out, roll her eyes, and then slump heavily to the ground. The attacks only lasted a minute at most, but the child was heavy, and if she fell against something she got a bad bruise.

But if an attack came while she was at her desk at school, she couldn't hurt herself. Fortunately, the teacher and mother realized how important it was for her to keep an active mind and to keep her school friends. Her problem was how to get to the lavatory, since she couldn't be allowed on stairs alone, and the teacher couldn't take the time to go with her. So for a time, her mother came to the school every few hours to help her up and down.

When the child, who had been under competent treatment but had showed no improvement, was switched to another drug—at that time still in the experimental stage—she started to improve. Within six weeks, she was having no attacks. That was four years ago. Now she is not taking any medicine and still has no spells.

This is not an unusual medical story; it is typical. The goal in dealing medically with an epileptic patient is to adjust medication so he will be free of seizures.

Such favorable results are possible only with full information. It is necessary to make a diagnosis of the convulsive disorder to determine the type of attack. Sometimes this can be done by hearing a full description of what happens or by seeing an attack. Loss of consciousness for a few seconds is usually a *petit-mal* attack. ✓

A major convulsion with fall, cry, and rhythmic jerking movements

followed by deep sleep is grand mal. The third type, *psychomotor*, shows itself as a period during which the child is confused and behaves in a way which is irrational and of which he has no memory later. He may not even know he has had a spell.

Although a description helps, it is difficult, without an electroencephalogram, an easy and painless process, to be certain which kind of spell a child has. This "electrical-activity-of-the-brain-record" should be made during a seizure. However, even if it can be obtained only between attacks, it is so helpful, in our opinion, as to be indispensable in the rational treatment of epilepsy. It is also necessary to try to estimate cause and severity, although these are less important in management.

After the diagnosis has been established, appropriate treatment can be started. The standard drugs—dilantin, pheno-barbital, and tridione—are effective in about three-quarters of the cases. When the standard drugs are not satisfactory, trial may be made of the growing number of new drugs which may be beneficial in individual cases: paradione, mesantoin, thiantoin.

✓ The following statements regarding epilepsy will be most meaningful in the school situation:

1. Recent studies show that one child in every hundred has epilepsy.
2. The incidence of epilepsy is many times that of polio and about that of tuberculosis and diabetes.
3. In over 50% of cases, the seizures can be completely controlled; in an additional 30%, seizures can be reduced in frequency and violence so that persons with epilepsy *can* lead normal, productive lives.
- ✓ 4. Epilepsy, *per se*, is not inherited; only a predisposition is inherited.
5. The intelligence of persons with epilepsy parallels that of the general public.
- ✓ 6. Epilepsy is *not* contagious.
- ✓ 7. Exercise—mental as well as physical—aids greatly in the medical treatment and control of epilepsy.
- ✓ 8. Most educable children with epilepsy can and should attend regular school classes. Seizures are less likely to occur when the brain is active. Education helps to compensate for a physical handicap.
9. In general, the person with epilepsy, especially a young person, should take his treatments at home, stay on the job or at school, and remain in his usual environment.

✓10. Environment is almost as important in the treatment of epilepsy as individual medical attention. Normal social contacts and a job sustain courage and increase opportunities.

✓For a school-age child with epilepsy, exclusion from school is a serious disaster. If he does not regain admission, he grows up an uneducated, unsocial person, a burden on society. If he returns after the passage of time, he is not able to return to the class of his own age and social group, and he feels out of place. Tutoring to help him catch up is difficult, and since the optimum time for acquiring certain knowledge and skills may have passed, he may never reach his potential level.

Another misfortune for such a child is to be institutionalized. Not all of the 10 institutions in the United States especially established for those with epilepsy have educational programs, and an institution for mental defectives offers little hope for the child with normal intelligence.

A child with frequent and serious convulsions may be a major problem in a schoolroom, and a child having many brief lapses of consciousness (*petit mal*) would find it almost impossible to learn normally. ✓The first concern of school authorities should be to help such a child secure proper medical attention.

Scattered throughout the country are clinics where full study and treatment of epilepsy are available. At present, these are connected for the most part with the large medical centers, as in Chicago, Boston, New York, and Baltimore. Here, the newer drugs are available, and the treatment is recognized as being important in helping to allay fear and shame.

More and more effort is being made to spread this complete medical care for epileptics to the smaller communities, where it is needed just as urgently as in the larger centers. ✓A few states have traveling diagnostic and therapeutic facilities.

If medical services are available within a reasonable distance, parents should be directed to such a center and should be given any financial aid necessary for their child's treatments. School authorities who occupy positions of leadership in their communities should also solicit the help of others to make proper medical services more readily available.

Detroit pioneered in a program for epileptic children in 1934 when a special school was established for coordinating care with the treatment of the family physician. In the beginning, about half the children re-

mained at the school from Monday until Friday on 24-hour care and study; others came by bus daily.

The school program was developed to parallel that existing in other Detroit schools. Children were selected to attend if their problems with epilepsy were serious enough to interfere with their schooling in regular classes. However, only pupils who seemed able to respond to the medication and treatment then known were accepted. New medications enabled the school to discontinue 24-hour care in September 1939.

Increasingly, children examined at the clinic are immediately returned to regular schools, where teachers are informed about the problem of epilepsy. Now enrolled in the school are children who require close medical supervision for a period of time in order to establish the proper medication for the maximum control of their seizures. A few are accepted because their neighborhood school does not as yet offer an accepting and understanding environment. In reality, the school has become a rehabilitation center.

In Buffalo and in Battle Creek, Michigan, children with major problems of epilepsy are enrolled in schools provided for other types of exceptional children. In those schools, they may be reasonably certain of receiving adequate medical supervision.

New York City and Baltimore have developed a plan whereby, after assurance of proper medical supervision, children are retained in regular schools or, in a few cases, are placed on home teaching. Vigorous programs help increase the knowledge and general understanding of epilepsy on the part of all school personnel.

(It can, therefore, be concluded that with the provision of proper medical supervision, children with epilepsy can continue in regular classes. However, their teachers must have sufficient information regarding epilepsy to offer understanding and acceptance to a child so afflicted and to explain the facts to other children and their parents.

The child with epilepsy does not suffer from his seizures. He suffers from the doors closed on him and faces turned away because of prejudice and fear of the word epilepsy. The treatment of *this* suffering is in the hands of responsible nonmedical adults—teachers, employers, relatives, and friends.

Only when these individuals can look straight at a convulsive disorder of any type and see it for just what it is—a medical condition like any other—only then will the child with epilepsy have a chance to enjoy and make full use of his abilities and potentialities. ✓

The Child with an Orthopedic Handicap

Each year accidents and diseases before or after birth cripple many children. Although modern advances in the various sciences have done much to prevent such crippling, they have also saved and prolonged the lives of many of the handicapped formerly doomed to an early death. As a result, statistics on the extent of orthopedic handicaps tend to stay fairly constant, and the challenge of serving crippled children remains one of sizable proportions.

An interdisciplinary approach is usually necessary if the needs of the crippled child are to be properly met. Whether psychology, physical therapy, education, and/or rehabilitation plays the leading role depends upon such factors as the age at onset of the condition, the severity of the problem, and the prognosis. To appreciate the part each profession must play, members of the cooperating disciplines must have an understanding of the various orthopedic impairments and the problems that are often associated with them.

Schools, clinics, and rehabilitation centers are well aware of the need for united efforts, and, when properly staffed, such agencies can do much to help crippled children become well-adjusted adult citizens. But often clinics and rehabilitation centers are not available, and schools may lack the needed specialized personnel. It then becomes the responsibility of the school to devise *some* means for adequately serving crippled children. In this chapter, therefore, particular emphasis is placed on the methods by which the schools are actually meeting the needs of such children.

The first article in this chapter, by Maurice H. Fouracre and his co-workers, emphasizes the educational program of the orthopedically handicapped. Special social and emotional problems of such youth are discussed by Lawrence K. Frank. Because the amputee child is often overlooked when considering children with orthopedic handicaps, the editors have included a selection by Siller and Peizer to help the reader appreciate the unique problems faced by children with amputated limbs. Special problems of school housing are discussed by Romaine Mackie. Finally, the responsibility of the school in the area of rehabilitation is discussed by Evelyn Davies in the last reading in this chapter.

22. Educational Abilities and Needs of Orthopedically Handicapped Children *

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How can the schools better serve children who are orthopedically handicapped? In order to answer this question, several others must be considered: What are the educational abilities of these children? What are their special educational needs? What do the answers to these questions suggest to the personnel concerned with planning the educational program for crippled children?

Today many educational centers serving orthopedically handicapped children maintain curriculums closely resembling those supplied to normal children. School officials, teachers, principals, and administra-

* Reprinted and edited from the *Elementary School Journal*, 51: 331-338, February 1950, with permission of Maurice H. Fouracre, and The University of Chicago Press.

tors in these special schools require that the orthopedically handicapped child meet and maintain standards established for normal children. The underlying assumption guiding educators is that the present regular academic program is satisfactory and that it can be followed equally well by the normal child and the orthopedically handicapped child provided some modifications are made for the latter group.

Theoretically, these adaptations would assume the forms of daily physical, occupational, and speech therapy and allotted time for avocational activities, such as hobbies, handwork, crafts, games, music, art, Scout programs, and recreational swimming. Actually, however, the only significant existing difference found in the two curriculums has often been the provision for the handicapped child to receive physical and speech therapy as part of his program. A program of this kind would imply that the only difference which exists between the normal and the handicapped child is the latter's crippling condition. This assumption has not been validated and may be completely erroneous.

In the light of modern educational philosophy and current trends in child growth and development, the curriculum should arise from the needs and abilities of the individual child rather than be arbitrarily superimposed. To give the crippled child a program designed for the average child is unfair both to the child and to those teachers who carry through the program. The more logical procedure would be to devise an educational plan suited to the needs and abilities of the handicapped child. Therefore, the group for which the program is intended must be studied to ascertain their needs and capacities.

An ideal program for the crippled child should include all phases of his growth—social and emotional as well as physical and mental. This study covers the physical and mental factors only.

Studies of intelligence of orthopedically handicapped children have been rather consistent in their findings. Lee¹ made a survey of the patients in the Children's Orthopedic Hospital in Seattle to ascertain to what degree the intelligence of crippled children compared with that of unselected children in good physical health. She found that the mean intelligence quotient for this group of 148 children, ranging in chronological age from three to sixteen, was 86.8. This was appreciably below

Low
98
See
16

¹ Mary V. Lee, "The Children's Orthopedic Hospital: A Survey of the Intelligence of Crippled Children," *Journal of Educational Research*, 23: 164-166, February 1931.

that of the unselected group of physically healthy children. Children with congenital deformities were most inferior in intelligence.

Witty and Smith² report the testing of 1,480 children in schools for crippled children in Chicago, Detroit, St. Louis, Cleveland, and Toledo. The range of intelligence was from 50 to 134, with a mean of 84.5. Stanton,³ in a partially completed study of the intelligence of crippled children, excluding those with cerebral palsy, found that the range of their intelligence quotients was from 35 to 140, with the intelligence quotient of the poliomyelitis group higher than that of any other group.

Fernald and Arlitt⁴ tested 194 crippled children in Cincinnati and found them to have a mean intelligence quotient of 82.35. They found that there was no clear relationship between the level of intelligence and age of onset of crippling but that there was some tendency for the intelligence quotient to decrease as the degree of crippling increased.

Lee,⁵ in studying all types of orthopedically handicapped children, found that the average amount of schooling completed by 835 pupils in the Oakman School in Detroit was eight-tenths of a grade a year.

The primary purpose of this study is to investigate certain measurable factors known to be related to learning and adjustment in a group of 129 physically handicapped children. These factors are intelligence, educational status, chronological age, and sex. The secondary purpose is to determine the presence of concomitant handicaps, such as amentia, speech defects, visual and hearing defects, and orthopedic conditions.

The results of the previous studies seem to be further validated or corroborated by the findings of the present study, which was conducted at the Day School for Crippled Children at Buffalo, New York. Established by the City of Buffalo Board of Education to provide educational opportunities for the crippled child, the Day School is designed on a single-floor plan, with ramps in lieu of stairways and classrooms opening onto individual patios. The building facilitates the maneuvering of the crippled child, as well as easy dismissal in case of emergencies. Since the school is located adjacent to a hospital, it receives the continual

² Paul Witty and M. B. Smith, "The Mental Status of 1,480 Crippled Children," *Educational Trends*, 1: 21-24, January 1932.

³ Rudolph Pintner, Jon Eisenson, and Mildred Stanton, *The Psychology of the Physically Handicapped* (Crofts, 1946).

⁴ Mabel R. Fernald and Ada H. Arlitt, "A Psychological Study of a Group of Crippled Children of Various Types—A Preliminary Report," *School and Society*, 21: 449-452, April 11, 1925.

⁵ John J. Lee, "The Crippled," *Nation's Schools*, 31: 22-23, March 1943.

services of a highly trained medical staff consisting of several physicians, nurses, therapists, and dieticians. Busses provided by the Buffalo Board of Education transport the children to and from school.

The number of subjects available for study was 171 pupils. Of this number, 137 were orthopedically handicapped and 34 were non-orthopedically handicapped. The latter group of children had been placed in the school because of the special advantages it offered them.

A psychometric examination, Form L of the Revised Stanford-Binet Scale, was given by the writers to those children of the group who were physically able to participate. Others, who were unable to respond to the test items because of defects of the speech mechanism or poor motor co-ordination of the hands, were rejected. Trained students from New York State College for Teachers at Buffalo administered the Stanford Achievement Test. Medical diagnoses for each child were obtained from the attendant pediatrician, and speech examinations were given by the school speech therapist.

Table 1, presenting an analysis involving the factors of chronological age, grade, and mental retardation of the group, reveals considerable heterogeneity. The total number of children studied was 171. Of that figure, 101, or 59.1 per cent, were boys, and 70, or 40.9 per cent, were girls. These children were dispersed throughout the grades, preprimary to senior high school level, as well as in two special classes. One of the special classes was made up of epileptic children; the other, of seriously mentally defective children. The intelligence quotient range for the entire school was from 18 to 146, with a difference of 128 points between extremes. A wide range in intelligence quotient was found consistently in each grade; nine grades were found to have a range of over 50 points. In chronological age, these children ranged from six years, four months to twenty-one years, five months, covering a span of fifteen years. Similar to the intelligence-quotient range, the range in chronological age was considerable in each grade. The widest range was found in Grade III, from nine years and no months to seventeen years, seven months, in a group of thirteen children. Overage was found in every grade. One grade contained as many as sixteen overage children out of a group of nineteen. Of the 171 children, 103, or 60 per cent, had low normal intelligence or better, while 53, or 39.8 per cent, had intelligence quotients below 70, thereby falling into the feeble-minded group. Speech defects were found in 79 of the children.

The total number of orthopedically handicapped children who were tested were divided into subgroups: Group I included all cerebral-palsy children; Group II, children presenting poliomyelitis sequelae; Group III, children with congenital anomalies of the skeletal-muscular system; and Group IV, children whose crippling conditions were due to various other diseases, such as arthritis, tuberculosis of bone and joint, and muscular dystrophy, etc. Table 2 presents the distribution of the four subgroups according to chronological age and intelligence quotient.

TABLE 1

Distribution of Subjects According to Grade Placement,
Chronological Age, Intelligence Quotients,
and Handicapping Conditions

GRADE	Total	Chronological Age	Intelligence Quotient		Mentally Re-tarded	Non-Orthopedically Handicapped	Orthopedically Handicapped Tested
			Range	Mean			
Pre-primary	8	6- 4 to 12- 8	32- 82	54.2	6	2	6
I	19	7- 1 to 12- 5	44-106	70.4	9	2	14
II	21	7- 6 to 12-11	67-112	86.7	2	3	17
III	13	9- 0 to 17- 7	78-118	94.1	0	3	9
IV	6	9- 5 to 14- 0	54-105	87.8	1	1	5
V	12	10- 2 to 16-10	55-114	86.0	5	0	12
VI	11	10- 4 to 17- 5	66-123	93.9	1	4	7
VII	12	11- 4 to 16- 7	77-140	103.8	0	5	7
VIII	12	13- 7 to 17- 6	62-131	90.9	3	1	11
IX	12	13-11 to 20- 5	88-137	102.5	0	2	10
X	3	16- 3 to 18- 3	105-124	116.0	0	0	3
XI	4	16- 2 to 20- 5	131-138	134.5	0	0	4
XII	6	18- 8 to 21- 5	93-146	120.8	0	0	5
Special Class	17	9- 7 to 17- 0	32- 82	55.6	15	1	15
Epileptic Special Class	15	10-11 to 18- 2	18- 32	59.4	11	10	4
Total	171				53	34	129

The cerebral-palsied children presented the widest range in chronological age—six years, nine months to twenty years, eight months—and in intelligence scores, 18-146. This group also had the lowest mean chronological age—twelve years, six months—and the lowest mean in-

telligence quotient, 79.3. This means intelligence quotient is below average. The group with poliomyelitis sequelae had the highest mean intelligence quotient, 102.6; the smallest chronological age range, seven years, ten months to sixteen years, seven months; and a mean chronological age of thirteen years, four months. Group III had a mean intelligence quotient of 93.4 and mean chronological age of twelve years, nine months. The miscellaneous group, Group IV, showed the narrowest intelligence-quotient range, 48-124, or 76 points. It should be noted that all groups, with the exception of Group I, had mean intelligence quotients falling within the normal range.

TABLE 2

Distribution of 129 Orthopedically Handicapped Children by Chronological Age and Intelligence Quotient

GROUP WITH:	Number of Children	Chronological Age		Intelligence Quotient	
		Mean	Range	Mean	Range
I. Cerebral palsy	65	12.6	6.9 to 20.8	79.3	18-146
II. Poliomyelitis sequelae	19	13.4	7.10 to 16.7	102.6	55-137
III. Congenital anomalies of skeletal-muscular system	15	12.9	7.9 to 18.8	93.4	49-130
IV. Arthritis, tuberculosis of bone, etc.	30	12.8	9.0 to 19.8	90.3	48-124
All groups	129	12.9	6.9 to 20.8	86.7	18-146

The Stanford Achievement Test was administered to sixty-two children of the orthopedically handicapped group. Although the group actually contained 129 children, it was possible to obtain Stanford Achievement Test scores on only 62. The children who were not given the Stanford Achievement Test were omitted by the examiners either because of their low intelligence or because they were placed in the early primary grades and the norms for the test were too high. In each case, the results of this test were compared with the expected grade placement of the child based on mental age.

Using educational achievement as a criterion, Group II, as can be seen in Table 3, showed the most serious mean retardation, 17.6 months, with Groups I, IV, and III following in order 10.1, 8.1, and 1.0. The total mean retardation in school achievement is 10.1 months, with a

range of -38 to $+21$ months. It is interesting to note the extreme range of variance. Assuming the validity of the intelligence and educational achievement tests, some of the children were as much as twenty-one months ahead of their grade level expectancy in spite of illness, hospitalization, and interrupted school attendance.

TABLE 3

Comparison of Grade-Level Expectancy of 129 Orthopedically Handicapped Children with Their Actual Educational Achievement as Determined by Stanford Achievement Test

GROUP WITH	Number of Children	Mean Retardation in Months	Range of Variance in Months
I. Cerebral palsy	30	10.1	-32 to 20
II. Poliomyelitis sequelae	8	17.6	-37 to -5
III. Congenital anomalies of skeletal-muscular system	6	1.0	-15 to 21
IV. Arthritis, tuberculosis of bone, etc.	18	8.1	-38 to 12
All groups	62	10.1	-38 to 21

The group of 129 orthopedically handicapped children were also studied for the presence of multiple handicaps. Table 4 indicates the distribution of other handicaps.

TABLE 4

Distribution of Multiple Handicaps of 129 Orthopedically Handicapped Children within a Given Classification

GROUP WITH	Number of Children	Intelligence Quotient Below 70	Speech Disabilities	Hard of Hearing	Partially Sighted
I. Cerebral palsy	65	27	49	2	1
II. Poliomyelitis sequelae	19	2	2		
III. Congenital anomalies of skeletal-muscular system	15	4	6		
IV. Arthritis, tuberculosis of bone, etc.	30	5	6		
All groups	129	38	63	2	1

Thirty-eight (29.45 per cent) of the 129 subjects had intelligence quotients below 70 and, hence, were considered mentally retarded. Of

this group of 38, 27 fall in Group I, with Group II having the smallest number. Sixty-three (48.83 per cent) of the group of 129 had speech defects. Again, the largest number of children having speech defects was among the cerebral-palsy group, Group I. Group II had but two children with speech defects. Group III and IV both had six subjects with speech disabilities. Two children of Group I were hard of hearing, and one child was partially sighted.

Since Group I, cerebral-palsied children, presented the greatest number of children with speech defects and low intelligence quotients, it was decided to analyze the distribution of these two factors.

Table 5 presents a breakdown of orthopedically handicapped children according to severity of speech disorders.

TABLE 5

**Degree of Speech Defect Found among Orthopedically
Handicapped Children**

GROUP WITH	Severity of Speech Defect				Total Number of Speech Defectives
	1	2	3	4	
I. Cerebral palsy	16	17	10	6	49
II. Poliomyelitis sequelae	1	0	1	0	2
III. Congenital anomalies of skeletal muscular system	3	2	1	0	6
IV. Arthritis, tuberculosis of bone, etc.	3	2	1	0	6
All groups	23	21	13	6	63

This breakdown was obtained by rating the severity of speech defects on a scale ranging from 1 to 4. The numbers 1-2 indicate degrees of deviations of speech, intelligible though defective; the numbers 3-4, degrees of severity of speech defects ranging from unintelligible to mutism. Using this scale, it was found that forty-nine (75 per cent) of the sixty-five cerebral-palsied children had speech defects ranging from 1 to 4, and constituted 77.8 per cent of the children needing speech therapy. The other three groups contributed but fourteen, or 22.2 per cent of the children, to the speech-defective group. On the basis of this brief sampling, it would seem that a positive relationship exists between the condition of cerebral palsy and speech disabilities and mental retardation.

Conclusions

1. The sex ratio of the group studied was six males to four females.
2. Intellectually, the children studied grouped themselves in the subnormal and dull-normal levels. The intelligence-quotient range was from 18 to 146. Nine grades had an intelligence-quotient range of 50 points. The mean intelligence quotient seemed to increase as the grade increased.
3. The age range found in any grade was wider than is ordinarily associated with any specific grade. In one case it was as much as eight years, seven months.
4. On the basis of their mental ages, these children were retarded 10.1 months.
5. The largest single group of children among the school population studied was the cerebral-palsy group, in which was found the greatest number of speech defects and low intelligence quotients.
6. The number of children in the total group of 129 presenting multiple handicaps was considerable; 29.4 per cent were feeble-minded; 48.8 per cent had speech defects; 1.6 per cent, hearing defects; and .775 per cent visual defects. Thus a total of 80.58 per cent of the entire group had multiple handicaps.

Nineteen of the 129 children had triple handicaps.

In the light of these findings, it would appear that an academic curriculum geared to the needs of the normal child is inadequate for orthopedically handicapped children because it does not take into consideration either the needs of the crippled child or his abilities. Intellectually, most of the group studied did not have the ability necessary for meeting the requirements of the average curriculum. However, this statement does not include the entire group, since there is a small per cent of the children who do possess ability enabling them to enter certain areas open to the average child. Yet even this latter group cannot do so because they are incapacitated by physical defects. Thus there appears to be a seemingly insurmountable problem of educating a large group of physically handicapped children, some with mental retardation, in a highly academic curriculum which is impractical for future living. Here three pertinent questions arise:

Is our present-day educational program for the handicapped child merely so much busy work given to him until such a time as he will leave school for an institution or to be supported by his family?

Could not much energy, time, and money be saved by all persons concerned if an evaluation of the children's abilities was made early in their educational life, thereby enabling greater emphasis to be placed on education in terms of the individual child rather than attempting to fit the child to an already existing educational mold?

Is it possible to devise a curriculum built around the vocational, avocational, social, emotional, and educational needs of the crippled child?

23. Social and Emotional Development in the Adolescent Crippled *

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In planning for the child who is crippled, educators cannot ignore social and emotional development. Problems relating to adjustment in these areas are important at every stage of development, but adolescence can render them acute. In this article Lawrence Frank discusses some of the factors that tend to make social and emotional adjustment especially difficult for orthopedically handicapped children.

Insistent, often acute, problems of physical care and treatment of the handicapped child are usually so engrossing that we sometimes forget the child is also a developing, maturing personality. Consequently the handicapped child may be, unintentionally, deprived of the play and social activities and relationships with his own age group that are so important for the growing child as a personality.

Neglect of the child's need for play and especially for the give-and-take of interpersonal relationships with a group of his peers becomes

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increasingly serious as the child approaches puberty and becomes an adolescent, faced with the same inescapable life tasks and needs as other adolescents, but often unable to meet these unless specially planned by parents and other adults.

It is recognized by those who have observed and studied adolescents that this age group faces several life tasks which they cannot deny nor evade without risk of damaging, distorting or stunting their personality.

Briefly stated, the adolescent must try to become a self directing adult, no longer dependent upon parental authority but increasingly capable of making choices and decisions and acting responsibly.

The adolescent also must clarify and accept the masculine or feminine role, learn how to play that role and to utilize his or her sex capacities and needs for mature living.

Likewise, the adolescent must come to terms with the adult world and if possible find some job, vocation or activity in and through which he can demonstrate his adequacy, prove to himself and others that he has some competence and earn a living if possible.

Finally, the adolescent must revise his image of himself as no longer a child but an adult, with the privileges and responsibilities that an adult has.

While facing these psychological life tasks, the adolescent boy and girl are undergoing the process of accelerated growth and development that begins before puberty and continues for several years. The so-called normal adolescent during these years is often disturbed, even actually anxious over his or her changing body size, shape and developing sex characteristics. He is worried lest he be abnormal or different from others. For the handicapped child who has felt different, even abnormal, all his life, this period of physical growth and development may be a time of intense worry and preoccupation with his bodily changes, and often he has no way of expressing his feelings. However, puberty should offer reassurement to the handicapped child that he is normal sexually.

Obviously, these life tasks may present exceedingly difficult problems for a handicapped child. If he is more or less dependent for physical care and even for movement, it will be very hard to emancipate himself from parental authority, to grow up as a personality capable of being an individual with some autonomy and individuality. To help their child accomplish this even moderately well, parents must make every effort to foster independence, not only in motor activities and self

care, but psychologically. This means cultivating the child's own interests and giving him every possible opportunity to make choices and decisions, to feel he has some autonomy and can make selections and express his own ideas.

This process of cultivating his independence should start before adolescence and be increasingly encouraged as the child grows older. Often parents, through their very devotion, rob the child of any capacity for judgment, choice, independence, "smothering" him with love and over-solicitude which denies him any opportunity to exercise any choices and to become less dependent. The more severely handicapped the child, the more ingenious the parents must be to contrive ways of encouraging him to be psychologically independent, to have his own ideas and opinions, to make his own choices and decisions as essential to his development as an adult personality.

As a developing young man or woman, the handicapped adolescent is often treated as if he or she were sexless, with no interest in the other sex, given little or no opportunity for the kind of social and interpersonal relationships that are so essential to the developing adolescent personality.

This presents a very difficult situation for parents since they may, with the best intentions, increase the adolescent's difficulties. Feeling himself different and often shy and timid, the handicapped adolescent may be oversensitive and inclined to suspect that friendly visitors are coming only through parental connivance. The boy or girl wants to have visitors and friends, but to feel that these friends are coming because of their own personal liking for them. During this period the boy, like the girl, has to validate himself by winning some attention, attracting the interest from the other sex that proves to him that he has "what it takes" to belong, to be accepted by his age mates and especially by the other sex.

This is the process of clarifying and establishing the masculine or feminine role and it is a delicate, subtle process which each generation of adolescents works out in terms of the current language, gestures, jokes and repartee, social relationships, clothes and, for girls today, glamor techniques.

While the handicapped adolescent may outwardly appear to be indifferent and uninterested, it is safe to say that, with few exceptions, they are as much concerned, if not more so, with this process as all the other

adolescents, but often feel helpless and hopeless to do anything to participate. Even those who can go out and move around more or less freely in school, despite some physical impediment or handicap, may feel blocked and self-defeated by their feelings of being different, abnormal and not liked.

The situation is not hopeless if parents will look forward to this time and help to cultivate the child's interests and capacities as a personality with potential abilities that will be of immense value in the teen ages. This means that the child should be encouraged to learn to play some musical instrument if at all so inclined, so that he or she can later on have the gang in to play and sing together; to devise and give puppet shows, or develop any other skill that will give the child something to do by himself that will be socially useful and satisfying.

Every individual has some special interests and capacities for making a contribution to a group, of demonstrating his or her ability to participate in having fun, telling stories, or being an interesting conversationalist, anything that will enable the adolescent to join in or to invite the group to come in without feeling they are doing so as a duty or out of pity. For this the adolescent needs to have his self confidence built up by parents.

Unfortunately we have done very little of this for our normal adolescents who suffer acutely from shyness, embarrassment, worry over their popularity or ability to "make the grade" and to contribute to a party. The handicapped child especially needs this preparation so he can have friends who will like to come in and have a good time.

Parents can, with careful planning and ingenuity, encourage the child to plan for such visitors, to devise simple refreshment, including candy making or waffles and cocoa. The emphasis should be upon encouraging the child to plan and do these things as his way of entertaining friends or being a good host or hostess, with the parents in the background.

Much can be done in these simple ways to provide for the social life of adolescents, but the more specific sex and emotional needs of the adolescent boy or girl present a more difficult problem which parents for the most part are unwilling to face.

The situation is difficult because the handicapped adolescent boy or girl usually feels that he is abnormal and unattractive to others, that

he can never hope to have what others have—love, marriage, children—and yet at the same time he may have the same daydreams, the same urges and impulses and desires as other adolescents.

We may talk of sublimation and it may work for some adolescents who seem to be able to find compensatory satisfactions in creative work, writing, painting, crafts, but we never know how they actually feel about this enforced acceptance of loneliness. Some parents may be more honest and courageous and ready to face the problem instead of ignoring or denying it.

If they can, it would be wise to try to talk over the situation with the child, encouraging him to talk about his feelings, longings and desires, instead of keeping it bottled up or repressed. If the parents personally are reluctant to do this, then they should ask some wise counselor to do so, one who will not lecture or moralize but will listen sympathetically and encourage the boy or girl to speak out freely of what they think and feel.

Perhaps no other group of adolescents, except possibly the delinquents, is in greater need of opportunity to talk out their feelings and problems, to put into words their often pessimistic reveries and sometimes bitter feelings against life. It is difficult enough to be physically handicapped, but it is doubly burdensome when one has to carry an immense load of repressed feelings, especially of mixed feelings, of love, gratitude and dependence upon parents, but also of resentment and rebellion against that very dependence and the inability to escape from it.

Adolescents today have a difficult time growing up in the midst of confusion and conflicts while developing an image of themselves as young adult men or women. This obviously is very hard for the handicapped adolescent who wants to be like others, to play a worthwhile part in social life, to feel adequate and acceptable. Often the handicapped adolescent could develop a way of life that would be more or less satisfying and fulfilling if only he or she could accept himself with his limitations and handicaps, but also with his individual abilities and potentialities that he can develop into a worthwhile activity or job.

We have for many years talked of individual differences, asking parents, teachers and others to recognize differences in children and adolescents. But we have forgotten that the most difficult task is for the

individual to accept his or her own differences, plus and minus, and learn to use his or her individual strengths and potentialities for living.

Handicapped children especially need help to accept their own differences, not passively and with resignation, but with a courageous spirit of working out a way of life that will bring as much fulfillment as possible *through their own efforts*. It has been repeatedly shown that the handicapped person resents anything that makes him feel more helpless, dependent or different, and that so many handicapped adults are burdened with chronic feelings of hostility and resentment. Some of this feeling is generated by the very persons who try to help them but in helping them, forget that they are personalities who want to feel, despite handicaps, that they are worthwhile individuals who can participate in life. It is hard to remember but essential to recognize that an individual may be crippled or otherwise physically handicapped, yet be normal, with the same needs, desires, capacities, and aspirations as others.

Much of the bitterness and life-long resentful hostility that handicapped adults often show could be avoided by more concern for the social, emotional, and sexual development of children, especially in the teen ages when insight, understanding, and careful planning by adults can help them to meet life more adequately and courageously as personalities.

All of those working with handicapped children and adolescents have a great opportunity and responsibility to help them by giving the parents and others who are in close contact with the boy and girl as much guidance and understanding as they can accept, and, above all, by giving some recognition to the personality of the handicapped boy and girl.

Print

24. School Housing for the Crippled Child *

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Although many crippled children can adjust to the regular classroom, some can be served best in a special class. This may be a special class in the regular school building or in a special school constructed for the purpose of serving only crippled children. A school system that decides to establish a special class or school is faced with a number of questions. For example: How much floor space is needed? Must all special classes be established on the first floor? What special facilities are necessary for such classes? Is special equipment necessary? Most educators realize that the variation in the types of handicaps served over a period of years precludes the possibility of setting up absolute standards; but, as noted in the following article, there are guiding principles to assist those who are faced with the challenge of providing for orthopedically handicapped children.

Many crippled children are able to make satisfactory adjustments in regular schools. Some, however, can only take advantage of the opportunity for education if special classes are available to them. For the crippled child, the special day school class or the special school is often the transition from the hospital to regular school. Probably just as often it is the step between the convalescent home or home instruction and the regular class. For this reason, the special school or class incorporates some features of a regular day school.

It is difficult to describe definitely what crippled children as a group

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will need in either a school program or in school housing, for each child's problems vary with the extent of his disability. Crippling conditions result from a wide array of causes and affect children in many ways. One child may be crippled in his arms only; another has crippled legs and must use crutches; another's disability affects his hands so he cannot write; and still another is crippled in both legs and arms and is confined to a wheelchair. To complicate matters still further, some crippling conditions will be of long duration, while others will be brief; some will be severe, while others are mild; still others will have a favorable prognosis as against unfavorable prognosis for others.

To meet these varying needs, many communities have established special classes for crippled children. In the United States, these special classes may be housed in (1) special buildings for the crippled, (2) special buildings for children with certain kinds of physical handicaps, (3) centers or units for crippled children within the regular schools and (4) single multigrade classes for the crippled. Crippled children may also be educated in hospital classes, convalescent home classes, sanatoria, residence schools, or, when no other plan is possible, in their own homes. This article will, however, deal only with day school provisions.

Crippled children require a variety of services and make the best educational progress if they can move freely from one class or treatment service to another, depending upon the current needs of each individual boy or girl. It is possible for a single crippled child during his years of schooling to be enrolled in a hospital class, convalescent home class, special school for the crippled, a class for crippled children in a regular school or to receive home instruction. If he is cerebral palsied, he might also spend a period of time in a residential school for diagnosis and intensive training. Wherever the child is, opportunity for education should be available to him; this means the building, as well as the instructional program, should be adjusted to his needs.

A building or classroom for crippled children should have features which help the children develop feelings of security and encourage free physical activity with a minimum of help from attendants and teachers. Features in the physical plant which should help children attain such feelings of security are ramps, elevators, handrails, sturdy equipment, wide hallways, spacious classrooms and adequate lighting. Among items to be avoided are swinging doors, slippery floors, thresholds in door-

ways, light and easily overturned equipment, sharp corners and furniture or equipment which projects unevenly into the room.

It is difficult to answer the question, "What is the best kind of day school organization for the crippled child?" often asked by educators and lay persons. No single pattern of organization can be followed by all communities. Each community should make plans which will insure a high quality of service to all its children. Large special schools or large centers are possible usually only in cities. Smaller school systems most often must think in terms of serving small groups of children who might form a center. A single class, which would serve one or more school districts or perhaps a whole county, may be sufficient for some areas.

Regular day school classes serve large numbers of crippled children, mainly those with lesser handicaps and many of whom need some form of special service. Often ordinary public schools can provide for larger numbers of these children if equipped with elevators or ramps, suitable entranceways, facilities for rest and special guidance.

For some children, however, an education is possible only by means of special classes. Some communities provide for these children through specialized schools such as the R. J. Delano school in Kansas City, Missouri; the Charles Boettcher school in Denver; the Sunbeam school in Cleveland; the A. Harry Moore school in Jersey City, New Jersey; the Spalding School for Crippled Children in Chicago and the Sunshine school in San Francisco. Some cities arrange for units or centers in regular schools, a plan that is meeting with favor in many communities. Throughout the United States, many small cities and county school systems make provisions through small centers and single multigrade classes in a regular school. In most of these schools and in many of the centers in regular schools, therapy is provided under proper medical supervision.

A special school should be equipped to function in a genuinely special way. Its existence can be justified only if it is constructed to accommodate the severely handicapped who cannot get the services they need in a regular class. It should include space for instruction, medical and health service, including therapy, rest facilities and equipment for noonday lunches. It should have easily accessible lavatory and toilet facilities, ramps, handrails, wide hallways, and functional entrances.

When school buildings are being planned or remodeled for crippled

children, some of the general housing features call for unusual attention. For example, most crippled children come to school in a bus, which necessitates provision for unloading the children at the building. Some schools are so constructed that the floor is flush with the floor of the bus at the loading entrance. Other schools incorporate a "carriage porch" to shelter the bus while the children enter or descend, protecting them from inclement weather. This feature, of course, is most necessary in climates where rain, snow and ice make an exposed floor or ramp a serious hazard.

Whenever it is necessary for children to go from one floor to another, elevators or ramps should be provided. They must carry not only children but wheelchairs and perhaps carts or other cumbersome equipment. For example, the A. Harry Moore school in Jersey City, a five story building, is equipped with three large elevators.

Doors should be wide enough to accommodate children on crutches, in wheel chairs, wagons as well as large pieces of equipment. Authorities vary in their specifications for doorways at least six inches wider than the average, to recommending doorways 54 inches wide.

To add to the children's safety and security and encourage movement and self help, handrails should be placed wherever the children go. Double handrails are necessary in hallways, along ramps, by drinking fountains, entrances to stages, lavatories and toilets. The Illinois State Department of Public Instruction suggests that the lower handrail be placed at 28 inches from the floor. A school in California which serves only cerebral palsied children, but which includes a nursery school, recommends that hand rails be placed at 18 and 30 inches from the floor. Rails should be one-and-one-half inches in diameter. Usually they project from the wall, but some newer types are built into the walls. Handrails should be continuous or terminate by returning to the wall in order to avoid projections.

Classrooms must be large enough to accommodate wheelchairs, relaxation chairs, special tables, crutches and other cumbersome but necessary equipment as well as the usual desks, chairs or tables. A spacious room, furthermore, fosters feelings of security and freedom which in turn encourage physical activity, an important part of the medical and health program for crippled children. Classrooms in the California State School for Cerebral Palsied Children are 30' x 40', except the nursery school classroom, which is 30' x 50'. These dimensions do not include storage or bathroom space.

The therapy quarters are a matter of concern to school architects. These quarters house the treatment activities of the program which are, of course, under medical supervision. In many respects, these quarters are designed more like a therapy department in a hospital or a clinic than like the usual school rooms. Service may in some schools be limited to one room, or it may consist of a suite of rooms, depending upon the number of children to be served and the nature of the program. Equipment for such a room should be prescribed by the medical staff and therapists in charge. The architect will need advice from the medical staff when he is planning therapy rooms.

Toilet facilities should be easily accessible to the most-used parts of the building, such as classrooms and therapy rooms. Some schools have running water in each room. The Sunbeam school in Cleveland has a lavatory and toilet between every two classrooms. Because ambulation is difficult for many crippled children and impossible for others, it is desirable to have a wash basin in or adjacent to each classroom. One or more toilet cubicles should be large enough to accommodate a wheelchair.

An interesting school building in Austin, Texas, provides for the crippled children in the Austin Public schools and also serves as a laboratory school for the teacher education program at the University of Texas. A recent article¹ described this building as follows:

"The building itself is a one-story building. It does not have steps or stairways anywhere so as to facilitate free movement by children in wheelchairs or on crutches. All halls are lined with rails on both sides to help steady children who may experience difficulty in walking. Every exceptional child who is physically able will be a member of a regular class and participate to the extent that he is able in the regular program of his age-mates. Those in need of specialized educational services will go to the special education wing for designated periods during the day. Only those who are physically unable to be members of regular classes will spend full time in the special education rooms.

"The administrative offices are designed to provide ample space for the principal, an outer secretarial office, a conference room, a faculty workroom, several smaller rooms for pupil personnel services (including a health suite and conference or individual testing rooms) and several small rooms for parent-teacher conferences.

¹ Henry J. Otto and J. W. Edgar, "Demonstration Center for Elementary Education," *Nation's Schools*, 45: 40-43, June 1950.

"Classrooms were designed to house the single-teacher-per-grade plan of organization. The dimensions of each room are 28' x 36'. Each room has its own work alcove with sink, running water, a gas outlet, cabinets and a drinking fountain. Individual toilet rooms serve each class group throughout the six grades. The placement of one toilet between each two classrooms enables one toilet to serve girls from two contiguous rooms while the other toilet serves boys from two neighboring rooms. The five group toilet rooms in the building are much smaller than the usual gang toilet rooms and are designed primarily to serve adults, except that the two gang toilets near the gymnasium will serve children from the playground. Each group toilet has one large stall to accommodate children in wheel chairs. Each classroom has an individual exit to the outside to permit outdoor class activities. Adjoining each classroom will be a small garden plot and a small paved area."

The problem of school housing needs for crippled children is thus one of wide ramifications. For those school administrators who have as a goal the establishment or expansion of special education programs for physically handicapped children, as well as those parents and lay leaders in the community who wish to stimulate and support these efforts, perhaps the following points may well summarize some of the major considerations:

1. In planning for school housing needs of physically handicapped children, careful consideration should be given the basic physical plant. Since specifications will vary in each individual case, it is not possible in this short article to give detailed practical information, but merely to highlight a few examples.

2. Of the many plans possible for meeting the needs of crippled children in the community, the one chosen should represent the best possible compromise between the resources of the school district and the extent of the problem to be met.

3. Some of the aids to independence in school, such as handrails, non-skid floors, etc., are adaptable to homes, thus offering parents suggestions for amplifying and supporting the school's efforts.

4. Careful architectural planning is required to provide physical facilities not only for the regular curriculum, but also for therapy, rooms for eating and resting, and transportation.

5. The problems of conversion of existing facilities as well as the construction of new plants must be considered.

25. Some Problems of the Amputee Child in School *

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Most professional publications concerned with exceptional children do not consider children with amputated limbs. The reasons for this neglect may be that there are relatively few such children, and that, in some respects, their problems are similar to those of children with other orthopedic impairments. Yet children with amputated limbs do present problems that are unique. For example: When should a prosthetic replacement be provided? What is the teacher's role in the rehabilitative process? How should the teacher prepare the other class members so that a smoother adjustment to the classroom situation can be made by the handicapped child? Jerome Siller and Edward Peizer discuss these and other issues of importance to those concerned with the adjustment and education of a child who has sustained an amputation.

The problems faced by children who have lost arms or legs are being intensively investigated in a number of centers across the country. Enough has been learned from these programs to provide some information to those concerned with the education of these children to help them continue and reinforce the rehabilitation process.

It is clear that many juvenile amputees are not significantly handicapped when properly treated. The modern rehabilitation regimen involves surgeons and nurses, prosthetists who make artificial limbs,

* Reprinted and edited from *Education*, 78: 141-147, November 1957, with the permission of *Education* and Jerome Siller and Edward Peizer.

therapists who work to restore function, and finally the family. It should be emphasized that the teacher cannot play a neutral role. It is impossible for her to have no influence.

Basic to an understanding of the teacher's role in serving the amputee child is a comprehension of the psychological situation of the child, his physical and functional capabilities and an awareness of problems peculiar to amputees. Recent surveys of child amputees have contributed additional insights into these problems. It is evident from this research that everything done to increase feelings of adequacy and to encourage restitutive efforts is desirable. This may be done by a pre-school orientation of all concerned—child, parent, teacher, fellow students.

Prosthetic replacement of the lost member should take place as early as possible; this should be done before the child is ready to enter school in the case of congenital amputees, and as soon after the trauma as possible for those children who suffer limb loss through accident or disease. It is important to avoid great physical change during the school term for even the child who is properly fitted and trained prior to entering school must cope with the initial reactions of his classmates. The teacher's role as a member of the treatment team and counselor to the parents is to identify the dangers inherent in these situations and to take positive steps to circumvent them.

The initial contact between the amputee child and the class should not be fortuitous. It is better that the teacher and parent together agree upon some plan for introducing the child. Experience has shown that introducing the child to his classmates had the most salutary results when both child and class had been previously prepared for the event in a non-dramatic, frank manner. A practical plan includes:

A. *A meeting between the parent and teacher.* Some insight into the personality of the child may be derived by the teacher at this time.

B. *Development of personal familiarity between the teacher and child before he is introduced to the other children.*

C. *Preparation of the class to meet the amputee.* The teacher should inform the class of the child's impending arrival and of his physical condition. This discussion may be enhanced by *greater emphasis upon the extent of functional restoration afforded by the prosthesis than on the remaining disability.*

D. *Presentation to the class.* No one technique can be considered

best for all situations. One method may be a simple introduction with no further ado, after which the child is permitted to find his own level in the normal social interaction of the class. The introduction may also include a simple demonstration of the functional ability of the child. In no case should the introduction be used to make a special person of him.

E. Parents' role. The task for the teacher will be simplified to whatever extent the child has been prepared by the parent. *The child must be prepared for rebuffs without being sensitized to look for insults.*

Thus, although successful integration of the child amputee into the normal school life is not solely dependent upon the teacher's role, her mediation can contribute effectively to that end.

A fundamental knowledge of the effectiveness with which the amputee child is capable of performing is important. The child with an amputation of the leg or of the lower levels of the arm is generally capable of the physical activity required in school. The problem with the lower extremity amputee is perhaps less serious than with the arm amputee. The functional restoration afforded by artificial legs is superior to that of artificial arms. In addition, the arm amputee is generally more conspicuous. Despite this, the unilateral amputee is generally capable of all the functional requirements of school life. A rough estimate of the degree of functional loss resulting from the amputation may be made by reference to the extent of the arm loss. In general, the closer the amputation to the shoulder, the more disabling it is. Knowing this, the teacher is in a position to guard against embarrassment and the development of "invalidism." Prevention of embarrassment is obvious and need not be dwelt upon here. However, the question of invalidism does warrant some discussion.

Invalidism is a neurotic reaction to disability which has as its function the derivation of satisfactions which the child does not feel he can obtain by more socially acceptable methods. By employing this neurotic mechanism (usually unconsciously) children and adults are able to manipulate and control those around them as well as to express hostility safely. The major point to consider in regard to invalidism is that despite the observed maladjustment and frequent self-harm incurred, the individual utilizing it does derive certain satisfactions.

Since it is relatively easy for the child to employ this mechanism in the home setting, he may also try to utilize it in school. Teacher and classmate can very easily contribute to this neurotic pattern by in-

judicious and misplaced feelings of sympathy or pity. On the other hand, if invalidism, as differentiated from real inability, is recognized and combatted, the job of the teacher becomes much simpler and her efforts contribute to the abatement or abandonment of this mechanism. From another standpoint other children are quick to recognize manipulative attempts and to downgrade the child both in status and acceptance. This may in turn serve to reinforce the neurotic pattern and very often cause the withdrawal of the child from social situations and further distort his interpersonal relationships.

Realistically there is only one goal for the amputee child: to be as completely integrated into the social, intellectual, and recreational societies of the school as his physical and psychological condition permit. The teacher who is aware of the functional capabilities and limitations of the amputee child and of the potential for personality distortion has the basis for the development of reasonable and achievable goals for the disabled child.

Successful experiences arising from achieved goals contribute to the development of self-esteem and counteract the previously noted tendency toward self-devaluation. They can also serve to buttress social status. With increasing self-esteem and improving social status, growth of independence may be expected. Not until the child has achieved a reasonable measure of independence can equality in peer relationships be attained.

In this connection a distinction should be made between true independence, which is based upon a person's realistic appraisal of his condition and potential, and pseudo-independence, which represents a protective mechanism which masks a refusal to face the reality situation. True independence has been achieved when the child is not only able to use proffered help, but when he is also able to ask for it in appropriate circumstances.

It is not unusual for a disabled individual to resent aid which is offered him. While this might be a function of pseudo-independence and thus reflective of an undesirable psychological attitude, it might also be the response of a person justifiably insulted by totally unnecessary offers of help. Particularly hard to bear is the devaluation of the amputee as a person which is often implicit in the offer of aid. Unnecessary offers of help might contribute to lowering the status of the child by placing him in a subordinate position, as well as one which sets him

off from his peers. It also contributes to the self-derogation to which such children are very susceptible. Assistance is less likely to be judged out of order if the donor is aware that it is helpful only when the recipient desires it. This means that although a person may need assistance, he does not always want it. To accept help in such circumstances might serve to provide trivial satisfactions at the cost of something infinitely more important—self-esteem.

26. Rehabilitation in the Schools *

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The school has gradually accepted its responsibility for the rehabilitation of handicapped children. This responsibility is spread among the several divisions of the school, including the physical education department. What should be the role of physical education personnel in the rehabilitation of the handicapped? What special services can the physical education department offer these children?

There are approximately 4,500,000 children of school age in the United States today who need some special consideration because of their handicaps. Many of these children are in public schools. To deal intelligently with their problem three factors are necessary: a constructive attitude on the part of educational personnel toward rehabilitation in the schools; adequate programs of rehabilitation in the schools; and the cooperation of teachers in administering these rehabilitation programs.

A specific example of a handicapped student in a typical school is

* Reprinted and edited from *The Teachers College Record*, 56: 92-97, November 1954, with the permission of Evelyn Davies and *The Teachers College Record*.

Ronald, twelve years of age, a victim of poliomyelitis. During his year in the hospital he attended the small school there, but now, in regular school, he is still a half year behind the group with which he started. Although he requires neither wheel chair nor crutches, he experiences difficulty in moving around because of a decided limp. What to do with Ronald and for Ronald has become the concern of the entire school. The administrator must schedule all of Ronald's classes on one floor; the nurse must watch him so that he doesn't overexert himself; the dietician must see that someone is on hand to carry Ronald's tray for him because already he has had several accidents in the cafeteria; and the teachers don't know just what to do with him. Some of them pity him and he gets away with "murder" because they can't really scold a cripple; others refuse to allow him to get by with anything "just because he is a cripple"; but all are afraid to have him try anything new for fear he will get hurt. Some of the children pity him and insist upon taking care of him; some dislike him because he is so different and gets so much attention; while some accept him for what he is—a normal child with a handicap.

Although there are many different kinds of rehabilitation programs in progress in schools today, the main emphasis here will be placed on physical education in rehabilitation.

"Rehabilitation," as defined by the National Council on Rehabilitation, "is the restoration of the handicapped to the fullest physical, mental, social, and economic usefulness of which they are capable." Handicapped, as it is used in this discussion, means any person or child with a disadvantage which makes achievement more difficult than for the average individual.

The term rehabilitation became generally familiar during World War II, in connection with hospital programs for disabled veterans. The main purpose of rehabilitation programs then was to expedite soldiers' return to active duty. After the war, the term rehabilitation was used in conjunction with efforts to equip veterans to return to remunerative employment and independence. Civilians later adopted this connotation of rehabilitation, emphasizing vocational readjustment, or restoration of disabled persons to former earning capacities. Today we speak of rehabilitation when we mean teaching or helping the handicapped child or adult to live and work as effectively as possible.

In present-day society much responsibility for the child has been

transferred from the home to the school. Furthermore, responsibility for some aspects of rehabilitation of the handicapped child is also being accepted by the school. This in no way *replaces* the hospital rehabilitation program, but it is closely allied and integrated with the hospital program. The child still attends hospital clinics and many of his activities are prescribed by the doctor, but as soon as possible he transfers from the hospital, where he has attended a school taught by special teachers, to a special school for the handicapped, or to a regular school where special classes for the handicapped may or may not be provided. Many communities have neither special schools nor special classes for the handicapped, and it is the nurses, administrators, counselors, and teachers in those communities with whom we are particularly concerned.

Both rehabilitation and education are directed toward the fullest possible development of the individual within the framework of society. Therefore, each educator becomes a member of the rehabilitation team for the handicapped child in his school. This team concept is not a new one; it was popularized during World War II, when all disciplines united into one team to promote the patient's total development. So it is in any school which handicapped children such as Ronald attend. The nurse, doctor, dietician, counselor, administrator, parent, and teacher, with Ronald, form a team which assists him in his program of rehabilitation or total development.

School rehabilitation programs must include habilitation programs as well, since some children, such as victims of cerebral palsy, are born with handicaps. For them the emphasis is placed not on restoration of physical, mental, social, and economic usefulness, but on education for development to the fullest extent. In short, rehabilitation in schools is the integration of all disciplines to teach the handicapped child to live, not just within the limits of his disabilities, but to the full extent of his capabilities. Thus progress is made toward fulfillment of the educational objectives as established by the National Educational Policies Commission—the development of self-realization, human relationships, civic responsibility, and economic efficiency.¹

Although all these are equally important and interdependent, for purposes of brevity, stress will be placed in this discussion on the first two objectives: self-realization and human relationships. In broad

¹ Educational Policies Commission, *Policies for Education in American Democracy* (National Education Association, 1946), p. 17.

terms these become the psychological and social aspects of rehabilitation.

Self-realization includes knowledge and acceptance not only of disabilities but also of capabilities. In physical education this becomes acceptance of the body as an effective instrument for expression, based on knowledge and understanding of one's strength, endurance, capabilities, and limitations. In physical education Ronald learns that he can still play ball with the fellows—he can still bat and catch—but it is best that he have someone run for him. With additional help, however, it might be possible for him to become a better hitter and catcher than some of the other boys. The child who has had rheumatic fever learns that he need no longer be excluded from all activities, and with assistance discovers those in which he still may participate and to what degree.

Many psychiatrists and psychologists speak of the "body image" as a unique feature of individual personality, and claim that as a result of this body image, any disability a person has becomes an integral part of his total personality. An individual with a disability, be it temporary or permanent, structural or functional, develops an image—a concept of his own personality as influenced by this disability. This concept or image is developed and influenced by his experiences throughout life. Early in his life the child recognizes differences between his physical capabilities and those of other children—in the ability to run, skip, jump, swim, and climb. He also forms an image of his body as a whole in relation to specific parts, be they outstanding because of beauty or because of disfigurement. The important thing for teachers to realize is that they are not just teaching a child with a disability, but a child with his body image of that disability. They should help the child to form a positive although realistic body image, to accept his limitations, and to increase his capabilities.

To do this it is necessary that the teacher understand the child's disability and what it means to him. So often teachers make the mistake of projecting their feelings on the child instead of finding out the latter's realization of himself—his body image. This realization can be discovered only by listening to the child. Here is an example.

Physical therapists working with Dotty, a post-polio patient in functional training, were assigned to help her learn to go up and down steps. Dotty was about eighteen, a pretty blond in high school, planning to enter junior college in the autumn. She wore long leg-braces, which

she will probably wear the rest of her life, and used a wheel chair or crutches to get around. Dotty had absolutely no interest in learning to go up and down steps; it was just too difficult and too much trouble. It was quite a task to assist her, and with her braces and crutches she was not very easy to manipulate, especially when she would just give up and collapse on the therapists. Trying all kinds of motivation, someone asked her about the physical facilities of the college she planned to attend. She said there were quite a few steps, but quickly added, "You don't think I'm going to struggle up and down them, do you, with men there to carry me? Don't be silly!" Her body image differed decidedly from the image the therapists thought she might have. Dotty was escorted to every high school dance and her programs were filled with "sit-outs." The therapists had been stressing her limitations, while she was stressing her capabilities.

Human relations, so important in all phases of life for all people, and perhaps of greater importance for the handicapped child. As far as social status is concerned, the handicapped child may be considered a member of the minority group. Unless he is in a special school for the handicapped, he is the different one. Because the teacher doesn't know much about his disability and everyone is afraid he may get hurt or be in the way, he is the one who sometimes just stands or sits and watches. Friendship, cooperation, and respect for one's fellow man are basic to human relationships and social adjustment. There must be a certain amount of give and take and the handicapped child, like any other youngster, must learn a balance between dependence and independence. Each classroom or school situation can be a laboratory for training in group participation. This would include consideration for others, courtesy, sportsmanship, group loyalty and support, as well as self-sacrifice and self-discipline. In the classroom the handicapped child as well as others learns the rights and duties of society in general. With efficient leadership, each member of a group can learn to give and take in order to assure the best functioning in cooperation with or competition against other groups in our society. As self-realization and positive human relations are accomplished, the handicapped child is able to achieve economic efficiency and to assume his civic responsibility.

There are many rehabilitation programs in schools today. One of the disciplines contributing to rehabilitation is physical education. Some facets of the program described here may correspond to activities in

many schools or may apply in many situations. Although physical education is just one discipline of education, it may be of interest to consider some added potentials offered by physical education for rehabilitation in schools.

There are two main aspects to this phase of the physical education program—namely, correction of remediable defects and effective functioning with non-remediable ones.

Correction can often be achieved through early detection of symptoms. Many initial discoveries of handicaps are made through observations of the child's movements while in the classroom, the homeroom, the gymnasium, or on the playground. The alert teacher recognizes deviations from normal patterns of movement—deviations which usually denote handicapping conditions, whether temporary or permanent. The child who walks with an uneven gait, or who wears down one shoe more than the other, may have one leg longer than the other. This eventually could be responsible for much back discomfort or severe spinal curvature. The child who holds his head to one side may have an eye or ear defect; the one who often loses his balance and falls may have a neurological lesion. The classroom teacher is not expected to know why a child squints when reading, and the physical education teacher is not expected to know why a child falls when running. They are expected to notice the deviation, however, and to refer the child to someone who can find the reason for it. In most schools the procedure is to report the child's deviation to the nurse or the health coordinator, who makes an appointment for him to be examined by the doctor.

In many schools, children with reading difficulty are referred to a remedial reading class. In like manner, children with physical deviations should be referred to a remedial physical education class. The teacher of this class, who has had preparation and rehabilitation through physical education, follows the doctor's prescription in preparing the physical education program for that child. Few doctors know the various kinds of activities offered in physical education programs, so their prescriptions usually list what the child should *not* do. The physical educator takes it from there and helps the child select activities which promote correction of his defect and at the same time offer enjoyment. These activities may include dancing, games, exercises, and individual or team sports.

For the child like Ronald, who has a more noticeable handicap, the same procedure is followed as far as the doctor's examination and prescription are concerned. In this case, however, the doctor is the orthopedist from the hospital, who continues as a member of Ronald's rehabilitation team. Much time is spent helping the child understand his deviation and methods for reducing it. If improvement is not possible, time is spent helping the child learn how to move most effectively with his disability. Thus self-realization is started.

Activities are arranged on an individual basis, in different sized groups, depending upon the severity of defect, type of activity, and facilities of the school. All games and activities can be adapted to individuals, so there need be no spectators. Even those with severe handicaps may play. Examples which may be cited are the wheel chair basketball team, or the boy with little use of his arms joining forces with the boy with little use of his legs to make one baseball player. These, of course, are extreme cases, but it was not too long ago that these people would have been only spectators, because no one knew how to cope with them. In making adaptations, consideration should also be taken for the child with exceptional ability in physical activities. He, as well as the handicapped child, should be permitted to develop to the utmost of his ability.

Physical education programs for the physically handicapped child are found on all levels—from kindergarten to and including college. Much individual attention is needed, so these classes are usually quite small. At times the severely handicapped student may be in a class by himself. Others who have similar defects may profit more psychologically as well as physically by being trained in groups of two or three, while still others may gain most by participating in large group activity. Whenever possible, the child is given the benefits, direct and indirect, of performing physical activities in groups rather than individually. In group activities there are shared experiences which demand awareness and respect for other people. This is important for the handicapped as well as the non-handicapped child. Many times individual sessions are held to assist in preparation of the handicapped student for this group activity.

In individual classes, appreciation of capabilities is stressed, but not without acceptance of limitations. In addition to specific exercises,

time may be spent improving daily functional living patterns, or special skills, thus indirectly helping to achieve self-realization and to improve the body image.

Just as individualized attention may provide development of particular skills or neuromuscular activities, group games and sports may foster better social and emotional adjustment. Opportunities for competition and cooperation, two components of group interaction, are offered, as well as sheer enjoyment and fun.

As often as possible, all children should participate in regular physical education classes. These classes are really the melting pots, since this subject is included in everyone's curriculum. Here the child may forget himself in sheer enjoyment; here he may rid himself of all that pent-up energy. Participation in group games and sports enables him to learn not only activities but also the rules which govern them. He may acquire leisure-time and recreational activities which will prove helpful in adult life. Through physical education the child may also acquire two assets for later life—how to move with maximum efficiency, and how to avoid tensions.

In any school where there are handicapped children, be they handicapped physically, psychologically, or any other way, there is great need for all teachers in that school to help students understand and accept one another. This requires patience, knowledge, imagination, coordination, and teamwork. Education in understanding and accepting others is needed not only for the handicapped child and the teachers and students with whom he comes in contact but also for other school personnel and parents. Many times the handicapped individual is much better adjusted to his handicap than are the people with whom he comes in contact. While in the hospital he receives training in functional living—how to dress himself, how to tie his shoe or his tie with one hand, or how to get on and off a bus. When he gets home or goes to school everyone wants to be helpful and tries to do everything for him. In addition to getting in his way and making him appear clumsy, these helpful people rob him of the independence he has tried so hard to achieve.

A great deal can be learned from the handicapped person who has become independent in spite of his handicap. Helen Keller and Franklin D. Roosevelt are two of the well-known handicapped people who refused to be impeded because of their handicaps. There are many others, such as the tap dancer with one leg, the golfer with one arm, the ball player

with one hand, who have overcome their handicaps and are leading full, fruitful lives. Working together as a team, and separately in each discipline, wherever teachers may come in contact with the handicapped person, it is essential that they as educators accept him as an individual and believe in his worth as a human being.

Some schools are all one floor, some have ramps for wheel chairs, and elevators, while others have many more elaborate conveniences for the handicapped child. For the majority of schools, however, it may be necessary for the administrator or counselor to help schedule all classes for the handicapped child on one floor or to schedule additional classes for him. It may be necessary for the nurse to spend additional time making sure that a child like Ronald is not overexerting while trying to compete with other children. It may be necessary for each teacher to learn more about the child as a person, and how his handicap affects him. Then, with the assistance and cooperation of all members of the rehabilitation team the handicapped child should achieve self-realization, positive human relations, economic efficiency, and civic responsibility.

Only then will he be able "to grow up in a world which does not set him apart; which looks at him, not with pity, scorn or ridicule—but which welcomes him, exactly as it welcomes every child, which offers him identical privileges and identical responsibilities."²

² William J. Ellis, *The Handicapped Child*, White House Conference on Child Health and Protection (Century Company, 1933).

The Child with a Handicapping Medical Condition

The nation's health has improved significantly in the past decade and promises to get even better in the next ten years. This is particularly apparent for mothers and children, as mortality rates have steadily declined; the infant mortality rate was 31 per 1,000 live births in 1948 and only 26 in 1958. The maternal death rate was 9 per 10,000 live births in 1949 and about 4 in 1959.

Since 1945, when penicillin was discovered, the mortality rate of rheumatic fever and rheumatic heart disease with children has dropped 70 percent. The poliomyelitis change has been more dramatic and can be attributed to the widespread use of the Salk vaccine. In 1949, there were 42,000 cases and 2,720 deaths, while in 1959 there were 5,700 cases and only 255 deaths. The United States Public Health has further reported the death toll from infectious diseases including childhood illnesses as 114,000 in 1949 and only 88,000 in 1958. The mortality rates for heart disease among adults and cancer rates among adults and children, however, continue to rise; the death rate from cancer was 138.8 per 100,000 in 1949 and 146.9 in 1958. The death rate from heart disease was 348.8 in 1949 and 367.4 per 100,000 in 1958.

Public Health Service officials have predicted that by 1970, new vaccine shots will be developed to prevent measles and upper respiratory diseases. Health experts foresee progress against cancer and heart disease, especially those types that affect children. However with more of our children recovering from diseases that in earlier years were fatal, the need for special educational services to help those who attend

school, but are still handicapped by the sequelae of these crippling diseases, becomes paramount.

Rapid advancement in the field of medicine has also brought to light many crippling conditions never before recognized. As these conditions are located and defined, medicine and related disciplines work to discover preventive measures. But the task of rehabilitating those already afflicted remains. There are no sharp lines dividing children handicapped because of orthopedic disabilities, neurological impairments, or medical conditions as far as the fields of education and rehabilitation are concerned. Nevertheless, for purposes of discussion the distinction can be made.

Many children with severe medical conditions need, in addition to medical treatment, special attention from the school and the community. For some, this means special education—at home, in the hospital, or at school. Other children may need, in place of or in addition to special education, counseling, rehabilitation services, or physiotherapy. It is essential that educators and others concerned with the welfare of children have some understanding of handicapping medical conditions and the special needs posed by them.

Readings in this chapter discuss some of the most prevalent handicapping medical conditions found in children. Unfortunately, brevity prevents a discussion of all such conditions. It should be stated, however, that many of the principles of treatment, education, and rehabilitation discussed here apply to all children with crippling medical conditions.

27. Children Left Behind: At Home, in Hospitals *

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Far too few children confined at home or in the hospital because of an illness or accident are receiving the educational attention from which they might profit. This article has important implications for the education of all children who are physically handicapped and cannot attend school.

"Education in the hospital will not get under way unless some one person or group of persons puts forth a very special effort." The same is true of education for the homebound. This article tries to show why special effort is needed and to suggest the values and the problems that come to light in getting the work done. Here we are looking at the education of those children who cannot go to regular schools because of illness or physical defect. Only a minority of such children now receive help in getting recreation and education. A few examples suggest some solved and unsolved problems:

A five-year-old girl hospitalized for nearly two years with severe burns was given a psychological examination. Preschool training enabled her to enter regular school and make normal adjustment . . .

A thirteen-year-old girl with cardiac trouble, but with great ability, lived at home in cramped quarters with seven brothers and sisters and a widowed mother. She was provided with a home teacher. This was her sole outlet and prevented boredom and depression . . .

A fourteen-year-old boy, ostracized by schoolmates and unwell-

* Reprinted and edited from *Childhood Education*, 33: 415-420, May 1957, with the permission of Edward A. Richards and the Association of Childhood Education International, 1200 Fifteenth St., N.W., Washington, D.C.

comed by teachers because of an unsightly skin disease, had his only educational opportunity through schooling at home and in a hospital . . .

A fourteen-year-old boy, who had no educational opportunity while hospitalized for tuberculosis, developed delinquent tendencies when discharged.

It is generally thought advisable to include handicapped children in regular classes, if possible, so that they will be in the "main stream," not segregated in special classes or schools. While this is becoming a more acceptable practice, special schools and separate classes also exist. Although these are not dealt with in this article, it should be noted that unless public opinion has brought about public provision for teaching such groups, it is unlikely that any interest will be shown in teaching the homebound and the hospitalized. The latter are in general part of "special education" from the school's viewpoint. Educational attention to them depends on the general belief in such education.

In many localities, progress in education at home or in a hospital has been marked. In others it has been slow. There are reasons. While some disabilities are dramatic, appealing and easy to describe, there is no single term to describe all the children who for many reasons fall behind the parade. It is difficult to publicize their needs as a total group.

Children who cannot attend regular school are an expensive minority. As one school superintendent said: "I am afraid this (educating the hospitalized) will continue to be a peripheral interest in comparison with the total job of public school education, until we are thoroughly sold on the need."

A school superintendent who is "sold on the need" is only part of the story. He will be influenced by the feeling in the community, as will the hospital administrator. The community may believe that recreation and education for children confined at home or in a hospital are either a family responsibility or a hopeless "boondoggle." Even the warm-hearted person may have a fixed prejudice against what he considers the inferiority of children who are confined. He proves his own superiority ". . . by pointing out the real or imagined limitations of others. The blind, the lame, the halt are easily singled out for such purposes."¹ Uncontrolled and undirected or misdirected emotion are likely to be useless

¹Helen L. Witmer and Ruth Kotinsky, eds., *Personality in the Making* (Harper, 1952).

where the treatment or the teaching of children is concerned. An American poet truly says, "Pity, having played, soon tires."

Parents of children who are chronically sick or badly crippled may themselves be uninterested in whatever is labeled education or recreation. They may consider such activities unnecessary. They themselves may feel "personally injured and attacked by fate";² since they may wish to shelter or even conceal their child from social contacts, they do not necessarily demand or support community efforts for recreation and education.

No one knows how many children are confined in hospitals or in their own homes throughout the country. Locally, the questions that need asking are: How many boys and girls in my community are confined at home or in a hospital? What are their ailments or disabilities? What do they need in the way of improved recreation and education? It is estimated that educational programs are currently conducted in not more than 5 percent of the some 1800 hospitals which admit children. If this is accurate, it means that less than 100 hospitals administer such programs. What this means in the number of children educated or not educated has not been estimated—but the proportion is far from adequate.

The U. S. Office of Education says that about a million children are receiving "special help" from the schools, but that "4 to 5 million school-age children have unusual educational needs. Some of them need to be educated in special schools or classes in hospitals or convalescent homes; some require the help of itinerant teachers in regular day schools; others need instruction in their own homes."³

Whatever the size of the problem locally or nationally, it is not so small that anyone need feel ashamed for spending time on it.

Children kept at home or in a hospital need treatment and therapy for their diseases and disabilities. They also need what all other children need:

- To be regarded as individuals
- To be assured that they are liked and loved
- To have as much social experience as they can take
- To maintain a sense of growth and accomplishment

² *Ibid.*

³ *Directors and Supervisors of Special Education in Local School Systems*, U.S. Office of Education Bulletin No. 13, 1955.

They may have become "cases," but fundamentally they are still persons engaged in the timeless process of growing up. Their emotional problems are not different from those that all children may experience, but they may be keener than usual because they have moved into a new and unpleasant environment or routine. One important factor cannot be disregarded. It can be found in practically all the literature on the subject except what is purely clinical or statistical; namely, the attitudes of parents and others toward a child who is ill or handicapped. It becomes difficult to see the ill or handicapped child at all through the cloud of attitudes toward and assumptions about him.

People who deal with children confined by illness and disability must have a deep faith in the individual. They must believe that that individual is a real human personality with hopes, aspirations and a need to participate creatively in his world, no matter what the temporary or permanent limitations of that world may be. Those who lack this faith should stay away or be kept away from children, including the handicapped. Children who are sick or disabled need doctors and nurses, medicine and therapy. In addition they need what all other children need: to be surrounded by people who respect, encourage and guide them.

Education and recreation at home or in a hospital cannot be improved solely or even chiefly by national action. Federal offices and national private organizations have done essential things, it is true, and will continue to do so. On the medical and therapeutic side it is clear that the wheels would have turned much slower (or not at all) if, in one field after another, authorities had not worked nationally to explain the problems to a public, to instigate and finance research, to help pay expenses of treatment, and to educate children, parents and teachers on the ever present subjects of mental attitude and emotional reaction.

At the same time, national publications in this field are anything but bureaucratic in emphasis. Again and again they stress the belief that the essential action to improve education, recreation and general health is a community action. *Improving the education and recreation of a child at home or in a hospital is a community task. It can be carried out only where the child is.*

The last statement is so obvious as to sound ridiculous, but there's a reason for making it. In few other fields is it so tempting to say that "they" ought to do something about it. "They" may mean the Legislature,

State or Federal, or a national foundation; usually it means anyone who lives 1,000 miles away from the speaker.

The pinch comes when it is realized that "they" have similar problems of their own, wherever "they" live. The need exists everywhere for better understanding and clearer knowledge of the task on the part of parents and the whole community. If you are looking for points of similarity in the far-flung American community, you need not stop by pointing out that each village has a filling station, or that there are millions of TV sets. You may also make a safe bet that in any community there are children who are kept at home or in a hospital or who should be. Granting that immediate health problems should be met first, the community must at the same time look at the question of the kind of recreation and education which can be provided so that the "whole child" will be *truly* whole, insofar as that can be achieved by human plans.

National agencies—official and unofficial—have stated this case convincingly. They can and no doubt will do even more than they have already done in clarifying the nature of the problem and inducing broader community consideration of children confined by illness and disability.

The task of gaining knowledge and understanding is the first task, as it is the continuing task, of volunteer leaders of community programs of recreation and education. The thinking and experience of a host of laymen are already at the base of the many fine efforts now carried on. They will have to be built into the foundation of those to follow. Nor should this knowledge and understanding be the possession of grown people only. Boys and girls of school age should early learn to know others who are confined, to understand their problems and to learn how to live with them.

A hundred practical tasks exist for volunteers young and old to perform in helping with the recreation and education of confined children. But those tasks may do more harm than good if they are thoughtless, uninformed or offhand. Few experiences can be more useful to depth of children's personality growth than acquaintance of a constructive kind with confined children. At the same time, ready association with children who are not confined is a spiritual bonanza to children who are confined. As one institutional head puts it: "The patients feel more accepted and show more interest not only in the activities shared

with the young person coming in from the outside, but in all the institution's activities." A fourteen-year-old boy who paid weekly visits to a twelve year old confined at home writes: "I gained experience in dealing with all sorts of taxing problems . . . satisfaction and pride. The boy learned much in the way of associating with people. He gained self-confidence . . . felt a sort of belonging to his town . . . not merely his home."

A volunteer in pediatrics writes: "I know of one patient who under specialized supervision could have made some progress in elementary education. Not having such guidance, my little friend tries to do what he is told, not knowing what it is all about . . . a definite delay in psychological recovery . . . It is not enough to give a child a toy and a friendly smile. The volunteer must try to understand the children and work under professional guidance with special problems."

But when these things have been said, we should come back to the primary role of the volunteer community leader—how to keep the particular needs of confined children high on the crowded agenda of general community needs and requirements.

According to a current study, the ideal teacher of the handicapped should have personal characteristics no different from those of any other ideal teacher. Any teacher of the ill or handicapped should have much of the same knowledge recommended by the study for supervisors and directors of special education. "Each must understand: (1) the physical, mental, and emotional deviations of handicapped . . . children; (2) the effect of the various deviations on children, their families and the community; (3) the specific agencies and community services for the various types of handicapped children; (4) current trends in educational programs for them; and (5) major studies about each type of exceptional child."⁴

Teachers as well as supervisors should know a good deal about such subjects not only for aiding individual pupils but to get on some sort of common footing with professional workers in health and medicine. Traditionally the training program of educators and health workers has grown up separately; each field has its own habits, disciplines and staff practices. Where their responsibilities converge in the person of a sick or handicapped child, somebody of professional understanding common to both should come into play. Otherwise the child may not be

⁴ *Ibid.*

served, or may not be served well. Also the teacher must have the ability to carry on his work even in homes that are inconvenient or unattractive and in hospitals that may not have been built with education and recreation for child patients in mind. Each must gain experience in bedside teaching, in hospital classes and group work, in guiding children who are instructed over the telephone where school systems are so equipped, and in other special requirements such as the use of recreational and educational materials under varying conditions.

As more communities undertake special education for homebound and hospitalized children, more directors, supervisors and many more teachers with special knowledge and skill will be needed. Fortunately opportunities for special teacher training in this field are increasing.

Several things stand out in regard to teaching children in hospitals. One is that as new hospitals are built or old ones rearranged, adequate space should be assigned for education and recreation of children. Bed-side teaching, with its lack of group experience, has other serious shortcomings as well. Secondly, the teacher needs professional status on the hospital team, like the nurse and the social worker. Extra care is needed in the education of preschool children, in the placement of adolescents and in their program. Hospital teachers need a plan for follow up on children who leave the hospital so that they will be able to evaluate their own work.

Home teaching presents its special difficulties, but without it children go downhill rapidly. Difficulties of poor environment, lack of family understanding, lack of interesting materials, widely separated residences of the children must be dealt with. But the rewards are great. Teachers and volunteer aides alike can testify to the satisfaction received by them and by their pupils.

To supplement the work of teachers, volunteer resources can be found in the members of civic, patriotic, fraternal and service organizations, many of whom have qualifications for teaching. Under direction they can be of invaluable assistance. High school students, under similar direction, can also stimulate and help with many educational activities by visiting their schoolmates or potential schoolmates.

People interested in the care and education of children confined at home or in a hospital are often impressed or even frightened by the number of people, interests and considerations that must circle around the head of each child. The nature of the disease or handicap; medical,

surgical, psychological and nursing responsibilities; family problems; recreational and educational techniques; administrative elements—all of these and more make a complex too—but they are so much a matter of course and taken for granted that they seem simple. Familiar institutions have to merge to some degree; the administration of the school gets connected with the administration of the hospital and, if the phrase is permitted, with the administration of the home. A whole new cycle of human relations is started.

While at first glance this new situation may seem oppressive, it can and should be turned into an asset. It is a fine thing that good doctors and good nurses should know good teachers, and vice versa. It is good that parents should consider health and education together. It is helpful that physically normal youth should associate with those who have physical troubles. It is desirable that community leaders should so band together that they can see their institutions cooperate for the benefit of children and youth. Anyone who feels restive or disturbed about the number of people and special arrangements needed for home and hospital education need only imagine what happens to children without such help.

Even today, with the great progress of recent years, there are still too many such children *without*. Redoubled community attention and organization are needed. *Goals for Rehabilitation*, the 1956 Annual Report of the National Society for Crippled Children and Adults, sounds a note that has a bearing on the education as well as on the physical rehabilitation of children. "Crippled children have emerged from the darkness of rejection into the light of useful living. This great change was brought about by men and women with a vision of how crippled bodies might be freed of their shackles . . . This was the work not of one man or one organization but of many, all of whom believed that life has a value only when it has something of value as its object, and expressed that belief by helping their fellowmen."

It is reassuring to know that there have been many such persons and groups holding this belief.

28. Psychological Problems of Poliomyelitis *

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Although the discovery of Salk vaccine in 1955 has greatly decreased the number of children afflicted by poliomyelitis, there are a great many who have not availed themselves of its protection. Educators must do their part in helping to disseminate information that will help all to recognize the value of immunization against poliomyelitis. Yet they must also have knowledge that permits them to understand and work with children who have suffered the consequences of this disease. It is important that teachers, school administrators, and others concern themselves with such questions as: What is poliomyelitis? What are its crippling effects? What are some of the psychological sequelae that may be attributed to the post-poliomyelitic crippling condition?

Poliomyelitis, or infantile paralysis, has been known since ancient times. This is evidenced in the ancient friezes which depict individuals with bodies that have been deformed by atrophy of muscles and by the excessive stresses and strains placed upon the bony structure as the result of loss of balance between antagonistic muscle groups following the disturbance of the neuromuscular mechanism.

The cause of poliomyelitis in man is a virus so small in size that it cannot be seen by even the most powerful of ordinary microscopes, but can be detected by the use of the electron microscope. While we are hopefully awaiting the eradication of this disease, we are still faced with the problems it creates each time it succeeds in gaining a sufficiently strong foothold in the body of a child and adult to be clinically recog-

* Reprinted and edited from *Psychological Aspects of Physical Disability*, 1952, U.S. Federal Security Agency, Office of Vocational Rehabilitation Services, Series No. 210, 33-43, with the permission of Morton A. Seidenfeld.

nized. It is difficult to know how many individuals have had poliomyelitis in such a mild form that, clinically, it was never identified or even suspected of having occurred. Undoubtedly, many individuals have experienced the prodromal symptoms (that are so commonly identified with many infectious processes) of a headache, a mild pain in the neck or back, moderate fever, a running nose and perhaps nothing more. In a day or two they have completely recovered and viewed the entire experience as a "cold" or "la grippe."

Doubtless some of these individuals have experienced a sub-clinical poliomyelitis which has done nothing more than make it possible for their bodies to develop some immunity to the particular strain of virus which they harbored.

Others who have not been so fortunate as to develop this immunity, or do not have the capacity within them to overcome massive doses or the virulence of the agent, or may have developed it to a particular virus type but when later exposed to one for which no such protection exists within their body, will come down with what will be clinically identified as polio.

Those who do develop the disease will, for the most part, likely be children. About 75 percent of those reported annually as having polio are between 1 and 15 years of age. The remainder are usually in an age group from 16 to 40. Infants are not infrequently known to have the disease and individuals well into the fourth decade are reported in practically all epidemic areas.

When the disease does occur its more common acute symptomatology includes sore throat, nausea and vomiting, headache, fever and drowsiness. While these symptoms are non-specific, when they are associated with contact with known poliomyelitics or when they occur during the "polio season" they provide a warning for close observation and precautionary procedures designed to protect the patient. On clinical examination the trained clinician can often elicit other more specific signs, especially those revealing stiffness of back and neck which, when present, give increased support to the tentative diagnosis. This may be further amplified by spinal fluid studies and other clinical findings.

Before long, pain associated with movement of the body occurs and, still later, paresis or paralysis of voluntary muscles may take place. Usually several days elapse before the clearly defined paralysis of muscle groups which are going to be involved takes place.

This is a very brief description of the more or less typical "spinal" polio. Other individuals will be found to have more involvement of their upper extremities, the muscles of respiration, the muscles of swallowing and speech. They have the "bulbo-spinal" type of polio and the involvement is centered maximally in the motor neurons of the upper portions of the cervical cord and extending up to the bulbar portions of the brain. When such involvement occurs, the muscles of the chest, the diaphragm, the shoulders, arms, and hands are affected. Many of these patients become the "respirator" inhabitants during a portion of their illness.

A third and smaller group have "bulbar" polio. They are characterized by having the maximum involvement of the "higher centers," or the vital centers of the brain, plus the 7th, 10th and 12th cranial nerves and some involvement of the meninges. Obviously these are the most severely involved patients and the mortality of polio is to be accounted for as deriving mainly from this group and the "bulbo-spinal" type.

From the standpoint of the vocational rehabilitationist, most of the patients requiring help in adjusting to their disability and in fitting themselves for a psycho-social-vocational future will come from among those who have suffered a residual paralysis and will of necessity derive mostly from the spinal and bulbo-spinal group. Oftentimes the bulbar patient who survives his illness will recover without any obvious physical disability although when a frank poliomyelitis has occurred, considerable alteration in mood and even in intellectual capacity may occur.

Psychological Factors in Poliomyelitis

We should recognize at once that we must concern ourselves with four basic problems: (a) the psychological characteristics of the patient before onset of his illness and disability; (b) the psychological effects arising directly from the disease process; (c) psychological alterations arising from the reaction of the patient to his disability; and (d) psychological reactions derived from the attitudes and behavior of others toward him.

THE PSYCHOLOGICAL CHARACTERISTICS OF THE PATIENT BEFORE THE ONSET OF HIS ILLNESS AND DISABILITY. Commonly we are inclined to attribute behavior characteristics to circumstances which appear to be more or less obvious. Thus we frequently attribute good

and bad qualities found in a disabled person to his disability. Many individuals look upon Franklin Delano Roosevelt as having attained much of his greatness out of his poliomyelitis. They think of Beethoven's musical genius and his deafness as closely associated. Or they think of the villain in the movies as being what he is because of his "game leg" or his misshapen back coming out of a Potts' Disease.

If we stop to think about this seriously we must recognize that regardless of the impact of a disability upon an individual's personality, it is necessary to recognize the importance of his inherited characteristics and, except for congenital disability, his experience prior to the onset of his disabling illness or accident. It is extremely unlikely that an accident or a disease resulting in physical alteration of the individual will completely wipe out the role of nature and nurture.

Therefore, before one can say with assurance that the poliomyelitic is the way he is because of polio, a very careful exploration of his pre-illness psycho-social-vocational history must be made. The patient who has done poorly in school, has been maladjusted in home and community relationships, or has failed to establish a sense of personal worth, self-assurance and security before the onset of polio, is not likely to experience improvement of a lasting sort as the result of his disability unless it has provided him with a completely new and greatly improved environment. Nor, on the other hand, is he likely to become vicious, cruel, aggressive or shy and retiring unless he possessed characteristics of behavior of a similar sort, perhaps on a less obvious basis, before the onset of his disability.

To the vocational rehabilitationist then, it is of the utmost importance that plans for the future of the patient be carefully evaluated in terms of the patient's past history. Full recognition should be given the established record of the patient to tolerate frustration, to maintain his courage and keep "plugging," his intellectual capacity as demonstrated by his academic and vocational success, his social adjustment, and the entire gamut of personality factors that he demonstrated *before he became ill*.

The failure to recognize the importance of the past in planning for the future may result in complete failure in the newly established vocational plan which could have been predicted far in advance. Recognition of the importance of this factor, on the other hand, will prevent the shunting of the patient into areas in which he can have little hope

of success and in which the experience of a further failure would merely serve to decrease the hope for ultimate successful adjustment.

THE PSYCHOLOGICAL EFFECTS ARISING DIRECTLY FROM THE DISEASE PROCESS. In poliomyelitis we must be aware of the possibility of psychological effects arising directly from the invasion of elements of the central nervous system by the virus. As long as the virus confines its action principally to lower motor neurons or anterior horn cells of the cord, it is likely to have very little demonstrable effect upon behavior except as it is revealed in the alteration of bodily movement. In some cases, however, especially in bulbar polio, we know that an inflammation of the brain may occur (polioencephalitis) and when this happens there is likely to be some organic brain damage with resulting alteration in mental function. Generally this is revealed as a change in irritability, altered capacity to concentrate and attend to what is going on, and even possible changes in mental capacity.

Fortunately, this type of event occurs rather rarely and in most instances behavior changes are less severe and readily explained on a pure environmental basis which will be discussed later.

To the rehabilitationist this is a matter of consequence since, for the most part, you may be able to anticipate minimal behavioral change resulting *directly* from the disease. You need, however, to recognize the possibility of such changes especially in the more severe poliomyelitic disability with a known history of high fever, oxygen deprivation, and extensive involvement of the cranial nerves and the brain.

PSYCHOLOGICAL ALTERATIONS IN BEHAVIOR ARISING FROM THE PATIENT'S ATTITUDES TOWARD HIS DISABILITY. In spite of the fact that in most instances we can anticipate that polio is *not going to make any organic change* in the patient, nevertheless we may be equally sure that some changes are going to take place in his behavior.

To some degree these will derive directly from the attitudes which the patient feels toward disability. It will depend upon: (1) The amount of fear he has experienced about his illness; (2) his pre-illness attitudes toward disability in general; (3) the amount of accurately and clearly oriented information he has about the effect the disease will have upon his future; (4) the kind of experiences he has had with his loved ones and his community relative to his disability; and (5) on what he believes he possesses in the way of trainability to attain independence of action, self-reliance and security.

Let us consider these points one by one. First, the amount of fear the patient has experienced about his illness will, of course, be subject to variation, but in nearly all instances we feel quite certain that some fears do exist. These fears will be centered around their own interpretation of the limitations which polio will bring in its wake. They will be amplified by their opinions of society's attitude toward the disabled which in turn is further modified by their own pre-disability reaction to those who are disabled, as discussed later.

These fears are based primarily upon the threat to the ego which occurs when one is not able to consider himself as a "perfect" physical specimen, and in the competitive sphere where the individual is embarrassed by being unable to attain goals which formerly he could, or thought he could, successfully accomplish.

This leads us to the second major source of fear—the pre-illness attitude of the individual toward disability. Most of us have prejudices and biases of one sort or another, even though we may deny their existence. These develop out of our need to feel superior, to feel successful, and to make certain that there are others who cannot "beat us out" in the competitions of life. These attitudes are so commonplace that we do not even bother to explain them—and as a matter of fact they really constitute one aspect of the law of self-preservation. So, in all of us there is a tendency to seek out individuals who have readily identified characteristics which we can use to label those who are considered to be *less adequate because of this trait or characteristic*. Obviously, physical disability readily lends itself to such behavior and, as a result, many report that "we can't stand to be with a handicapped person" or "physically disabled individuals are poor industrial risks," or the wide variety of pat phrases which are so often implied or spoken in our attitudes toward the physically limited.

Other individuals prefer to feel that the disabled are being punished for some actions in the past, or "for the sins of their fathers." And still others try to hide these feelings by over-attention, over-kindness and maudlin sympathy.

Since some degree of such attitudinal state exists in nearly all of us, it is hardly surprising that with the advent of disability an individual may find himself "hoist on his own petard" and the victim of self-condemnation. These reactions are not easy to overcome because the individual has lived with them so long and has applied them to so many

others he cannot readily abandon them when he would like to do so for his own comfort.

The third factor in inducing fear is the influence of his own knowledge about his disability. Frequently the individual is completely at a loss to appraise the extent, the duration, or the ultimate effect of his physical state. He often over-estimates his limitations, forgetting completely the capacities he has not used or developed to their full extent. Sometimes he underestimates his limitations and demands of his body more than it could be expected to do even if the disability were not present. Lack of proper orientation, inadequate or inaccurate appraisal of his capacities lead him to fears that are often groundless and unnecessary.

A fourth factor that may produce fear in these individuals is the reaction of his family and others, and even the community at large, toward the disability. If he has received love, understanding and tactful help in meeting his problem and if he finds he is judged competitively in his community, but with emphasis upon *what he can do* rather than upon what he cannot do, his fears will tend to be minimized. If the reverse is the situation, as is all too often the case, then his fears often rise to serious proportions.

A fifth and final factor in the evolution of the patient's fears is to be found in what he believes he possesses among his assets that can be trained and developed to give him self-assurance, security and personal independence of action. Without these things life becomes a continual threat and is devoid of the essential satisfactions. If he can be given the assurance or even the hope that with work and effort he will attain a self-sustaining role in life, his fears are likely to be reduced to a level with which he can cope successfully.

It would be surprising indeed if out of these many sources of fear and anxiety within the individual there were not behavioral changes. Suspicion, apprehensiveness, uncertainty are all concomitants of anxiety and we frequently find them in the behavioral spectrum of the disabled. The reduction or elimination of the sources of such fears will do much to prevent maladaptation as a permanent sequela.

PSYCHOLOGICAL REACTIONS DERIVED FROM THE ATTITUDES AND BEHAVIOR OF OTHERS TOWARD THE DISABLED PERSON. Mention has already been made of the effect upon the individual of the attitudes of those in family and social milieu. This is a very important factor not

only in the production of fears but also on the total reaction of the person to his environment.

It is rather an amazing thing that our attitudes as a society have not greatly changed from ancient times to the present day, from primitive societies right up to our most complicated modern complex social structure.

If we are to deal realistically with the problems of the disabled it is essential that we understand that most of us really do not like to be "different." In spite of our clamoring for *rugged individualism* we really mean that we want to be different from our fellowman only insofar as this does not make us stick out like the proverbial "sore thumb." If we are excessively intelligent we run the risk of being called a "genius" with one breath and a "screwball" with the next. If we are outstanding in graphic art or music someone is sure to praise us and then turn around and call us "queer," "eccentric" or "peculiar" or to say "Oh, you know how artists are."

So it is with the social attitude toward the disabled. A poliomyelitic with a paralyzed arm or leg, or a combination of both, is likely to find that he has become an easy target for discrimination and avoidance because he has been made so readily recognizable as different from his fellowmen.

There are those who feel that these social attitudes could be overcome. They believe a properly applied educational process could make society forget these differences and accept the individual for what he is. Perhaps this is so. Whether it is or not, there is no harm in continuing the efforts to at least improve the understanding and acceptance of the disabled. However, all must agree that the existing attitudes are of long standing and are difficult to eradicate. Therefore, a great deal of effort must, for the time being at least, be directed toward more adequately equipping the disabled to accept realistically the existence of such attitudes and developing an ability to tolerate them. If one can stop fretting over the existence of such attitudes, recognize the importance of developing their potentialities to the optimal level and then compete with his fellowman, fully prepared to "let the best man win" while making sure he is the "best man," there is a much better chance of successfully overcoming their limitations than by waiting for society to improve its attitudes.

The importance of society's attitude toward the poliomyelitic is

perhaps doubly important since often his disability occurs when he is very young. The acceptance or rejection of the polio child by his parents, teachers, and playmates, in and out of school, is going to play a very sizeable part in his ultimate adjustment.

*Researches and Studies on Psychological Aspects of Poliomyelitis **

Since poliomyelitis is principally a disease of children, knowledge of the events that occur during these formative years may lead to better understanding of their problems in later life.

The necessity for supplying young patients with guidance in adjusting to their prolonged convalescent period and the equally important obligation of orienting the parents of these patients not only to the physiological problems but those of psychological consequence as well, was recognized by Griffin, Hawke and Barraclough as early as 1938.

A number of investigators have reported upon the effect of poliomyelitis upon the intelligence and intellectual status of the individual. R. G. Gordon found that the disease did not ordinarily alter the I. Q. on the Stanford-Binet Intelligence Scale although prolonged school absence and the behavioral changes attendant upon hospitalization for long periods frequently resulted in emotional disturbance which interfered with their educational pursuits after creating a pseudo-mental retardation. Bronson Crothers and Edith Meyer, studying children with and without frank cerebral involvement, found that when brain involvement was present there was evidence of alteration in visual-motor capacity and the comprehension of spatial relationships. In addition, impairment in learning, ability to sustain effort and attention, as well as increased irritability were often noted. Where spinal involvement without significant clinical evidence of cerebral trauma was present, similar but much milder results occurred which were explainable in terms of interference with the child's normal development in a normal environment. The lack of opportunity for activity, socialization and for securing the warmth of parental affection are considered fundamental factors in producing such behavior when polioencephalitis has not been clinically demonstrable. Obviously the presence of a frank polioenceph-

* For a very detailed bibliography and summary of the research studies up to 1953 on the psychological aspects of poliomyelitis, the reader is directed to the source of this article given on page 206.

alitis will produce organic difficulties that retard learning and create altered personality structure.

Combined studies on a large group of patients who had been followed over a decade, indicate that when the patient is oriented toward making use of his capacities and emphasizing his physical and mental assets rather than the liabilities associated with his disability, he is likely to develop along essentially normal paths. His socio-economic-vocational adaptation will be influenced favorably when interference factors associated with the disability are minimized by early recognition of their effect on the job; by proper selection of vocations that have the least likelihood of calling for capacities in which such interference is commonly associated, and by adequate supervision and check-up of the disabled individual to avoid frustrations associated with such work interference. Long time follow-up clearly emphasizes that the severely disabled are in the majority of instances quite capable of leading a fully satisfying life, earning incomes comparable to non-disabled, and enjoying good social adjustment even though their frustrations are more frequent and greater in amount and extent than those experienced by the physically able-bodied.

Behavior problems in children with polio are frequently associated with parental reactions with tendencies toward over-indulgence often followed by over-severity and inconsistency. Some have noted that the frustrations resulting from their disability often produce irritability, crying, bewilderment and withdrawal. And still others have reported on the inaccuracy of the appraisals of these children which tend to emphasize their desire to conform and be like all children, yet actually fail to tap their inner feelings.

There are still many untapped areas of research on the psychological aspects of poliomyelitis. Particularly important is our need for extending our knowledge regarding the effects of respiratory interference and threats to respiration which occur in patients with bulbar and bulbo-spinal polio. There is also the need for improved psychological approaches to solving the psycho-social aspects which form the other facts of this problem.

29. The Cardiologist Looks at the School Child *

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The mere mention of heart disease among children is likely to bring many questions from parents and teachers of children with cardiac problems. Are restrictions necessary? Are such conditions permanent? What are the vocational limitations? The following article presents data that will help those concerned with the problem to acquire fuller understanding.

It may seem strange to be considering the "cardiac child" in an article concentrated upon the "total child," his development and his education. The accent in the educational process is to keep the child from feeling "different," a feeling which appears to be especially intolerable to the pre-adolescent and adolescent child. Yet, the very factors which have caused the "different" classification, should be enumerated.

The only excuse for this focus is that, in order to eliminate heart disease as a factor affecting the lives and activities of the children involved, we must acquire as much specific information as is possible and disseminate this information to those who live with, who supervise, or who educate the child so affected.

The fears and apprehensions which have for so long interfered with the reasonable management of this group of diseases have their roots in the general "fear of the unknown," and date from antiquity when the heart was considered the source of everything, including the emotions. The identification of the problem of heart disease in children with that

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in the adult suffering an attack of acute coronary heart disease, brought about the similarity of treatment that was marked by the use of unnecessarily long-term bed rest and varying degrees of permanent lifetime restrictions of physical activities. These have now gradually given way to individualization of treatment to suit the age and the stage of the child and his disease.

To those who have been involved in the teaching of children, it is nothing new to state that the child is a separate entity and not "a little man or a little woman." But it has taken somewhat longer to come to the realization that the child with heart disease is not a "little coronary patient." Many children with a diagnosis of heart murmur or heart disease have no reason to be concerned temporarily or in the future. Such children should not be lumped together into a handicapped group with those cases with a true or severe cardiac involvement. The differences between types of heart disease in the child are as marked as the differences between the children themselves.

As the cardiologist looks at the school child today, he must do just that: look first at the child and then at his heart. In the majority of cases he is able to eliminate the need for special concern by the patient, or by his parents or teachers, through accepting the responsibility for adequate long-term medical supervision and by notifying his co-workers in the care of the child when and if a new look has shown changes or progression. If severe heart damage or an irreparable condition is found, he must seek the help of these same co-workers so that inadequacies for normal development, emotional adjustment and vocational possibilities can be compensated for as early and as completely as possible. If this is not done, the result is the same as waiting too long in performing cardiac surgery and secondary changes have made curative surgery impossible.

Heart disease in children falls into three general categories. First there is the infectious group, of which rheumatic fever is the largest and most important. Secondly, there are the children with congenital heart disease—a much smaller number, but of increasing importance in recent years, since a large number are now curable by surgery. Finally, there is a still unfortunately large group of so-called "potential" or "possible" cases, who actually have no heart disease but whose diagnosis is based upon either a vague history resembling rheumatic fever or upon the incidental presence of an innocuous or meaningless murmur. The anxiety

thus aroused in the child and the parents may be more crippling and more difficult to dispel than the effect of true or pathologic heart involvement.

Rheumatic fever is a disease in which inflammation of many tissues of the body occurs simultaneously, and the symptoms are due to the localization of this inflammation: in the joints to cause rheumatism; in the skin giving rise to an intermittent rash; in the subcutaneous tissue causing nodules under the skin; in the brain causing chorea or St. Vitus dance; and in the heart, leading to swelling and inefficiency of the heart muscles and inflammation and poor closure of the heart valves. This occurs during the acute attack during which the child is usually obviously ill and also usually has fever. Unfortunately, however, occasionally these symptoms are very mild and may be missed unless the heart is examined very carefully.

Certain laboratory tests are helpful, but never absolutely diagnostic. In the usual mild case and with adequate treatment, complete disappearance of the inflammation occurs during the bed rest and treatment period. This child may never give evidence of heart disease and should return to normal activities after a reasonable period of convalescence. If valve damage has been slight though permanent, this child also may return to normal activities except for the elimination of certain competitive sports. If damage is severe and the heart does not improve after the attack, or repeated attacks occur, then the question of special school for handicapped children arises, but these cases are now fortunately becoming much less frequent.

Since apparently most of these children escape with little or no heart damage in the first attack, why is it then so important to make the diagnosis during this attack? The implication carried in the term, "first attack," is that repeated attacks will occur with progressively more and more heart damage. Occur they do, or at least they did, for there should be practically no second or third attacks in the present day. It has been ascertained beyond reasonable question that the streptococcus bacterium causes both the sore throat or scarlet fever which precedes the rheumatic attack and the attack itself as a secondary complication one to two weeks later. Thus, since we now have at hand the antibiotics which destroy the streptococcus, we similarly can prevent the secondary occurrence of rheumatic fever. Daily administration of the antibiotic is almost 100 per cent effective in this prevention. Without this prophylactic medication,

second attacks occurred in from 50 to 70 per cent of children who had had one attack. The first attack always gives evidence that the child is in the so-called "rheumatic state." This term has come to mean that the same chain of events making up the rheumatic attack would occur with each new exposure to the streptococcus. The cardiologist is here interested not so much in the heart, or the amount of physical activity engaged in, unless severe damage has occurred, but in the practice of preventive medicine, the prevention of a new streptococcic infection. His follow-up care is directed at making certain that no day passes without the administration of antibiotic prophylaxis.

The second group—children with congenital heart disease—have an abnormality occurring at birth in the heart or blood vessels which allow~~s~~ the passage of blood between the venous and arterial circulations in one or the other direction. There may also be interference in some fashion with the normal flow of blood through these two systems.

In past years, prior to the advent of surgical correction, these children sought and maintained their own level of physical activity long before they entered school. There was no need to prescribe restrictions since they naturally restricted themselves; but many were so markedly short of breath or blue on the slightest activity that they were unable to attend or could attend only a special school equipped with elevators or ramps.

At the present time, however, there is only a small group which remains thus far uncorrectable surgically, and, if the progress of the last few years is any indication of the future, the child that cannot be helped by surgery should soon be rare indeed. The cardiologist's responsibility there has also become one of preventive medicine. There is an optimum time for surgery in these children, and the determination of this time is dependent upon the earliest possible diagnosis, since in many cases adult or late diagnosis precludes successful surgery, secondary irreparable complications of an infectious or vascular nature having taken place. When normal circulation has been restored in these children by surgical means, they usually are able to resume normal school activities under careful medical supervision.

The third group perhaps should not be included, since there is no actual heart disease. The conviction, however, or even the suspicion that heart disease is present because of an insignificant murmur, or because night cramps in the legs have occurred, or because of a single non-

specific suggestive laboratory report, places this child just as certainly in the heart disease category as the two previous groups. The effect upon the child and the parents is equally as drastic and as limiting. The cardiologist's responsibility here lies in convincing the parents particularly that no heart disease is present. This is never, unfortunately, accomplished by a few reassuring words, but takes a complete diagnostic work-up and many repeated examinations and interviews to convince the patient or the parents that the physician is not just hiding the true state of affairs. These then are the three general types of child-patient which the cardiologist sees.

The cardiologist in pediatrics has become acutely aware of the problem of vocational rehabilitation, which has up to recent years been considered as an adult problem and has had only adult facilities. The adolescent child who learns that he has relatively severe heart damage, which will not improve, immediately projects himself into the future and wants a very clear answer as to what he will or will not be able to do as an adult. The answers to these questions in the past have been relatively lame, and it is hoped somehow that a special school would prepare him in some special way to compete to better advantage after he left school. Recent work, however, has shown that elevators and ramps and rest hours are not enough to accomplish this, but that training must begin early and be based on definite medical indications. When this is not done, the child goes through some years of discouragement and resentment before he or she is picked up by the adult rehabilitation service. By this time, the emotional barrier must be worked through before effective help can be brought to bear by these agencies. On the other hand, early and effective vocational guidance and training, if it is begun in the school, can be the start of a continuing program which is picked up and carried forward upon graduation, to give the child the opportunity of realizing his maximal potential as an active participant in the adult world. An attempt has been made to explain the need for special consideration of the child with cardiac disease; to illustrate what the cardiologist sees when he looks for heart disease in children and finally, to urge what Dr. Whitehouse has so aptly called "habilitation" in the handicapped cardiac child. In the final analysis, the cardiologist who looks at the cardiac school child sees the same child that educators see in their daily work.

30. Children with Tuberculosis *

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Despite the constant attention of various communications media, many adults fail to realize that the problem of tuberculosis still exists. Too few recognize the extent of this problem and the fact that children still suffer from its effects. As the following article suggests, teachers can play a role in helping to identify victims of this disease and can continue to give their assistance throughout the period of confinement. It is vital to note that since the publication date of this article, the United State Public Health Service, the American Medical Association, and the National Tuberculosis Association have warned medical agencies and physicians that mass screening by x-rays should no longer be used with groups, especially in the public schools, because of the dangers of radiation.

The past 20 years has witnessed a spectacular decline in the extent of the tuberculosis problem in the United States. The death rate has dropped from 71 per 100,000 population in 1930 to 7.1 per 100,000 population in 1958.† The reduction in the number of new cases of the disease reported annually has been less sharp but still substantial. Despite this, tuberculosis remains the leading cause of death in individuals 15 to 35 years of age. It is also the communicable disease responsible for the greatest amount of disability, particularly in the most productive period of life.

* Reprinted and edited from *Helping the Physically Limited Child*, 1953, New York Board of Education, with the permission of the Board of Education of the City of New York.

† The editors have supplied the more recent U.S. Public Health Service statistics.

It is encouraging that there has been a sharper reduction in tuberculosis in childhood than in the general population. The death rate in children under 15 years of age has fallen more than 80% during the past 20 years. The number of new cases has changed much less but this is partly accounted for by the tremendous increase in the population in this age group. Most striking has been the drop in the reaction rate to the tuberculin test. In 1938, 48 per cent of high school students in New York City showed a positive reaction to the cutaneous tuberculin test. In 1951, a similar group showed only 13.5 per cent positive reactors, a reduction of more than 70 per cent. In fact, the problem of tuberculosis in childhood is largely confined to infancy and pre-school children at present, with a secondary sharp rise appearing coincident with the onset of adolescence. Many factors have contributed to the extraordinary reduction in the incidence and mortality from tuberculosis among children. Of vital importance has been the diminishing frequency of contact with adults with active disease who constitute the chief source of tuberculous infection in children. This reflects the steady decline in the prevalence of the disease among adults as well as the isolation of active cases in sanatoria. Improvement in environmental conditions has also contributed to the decline in tuberculosis in childhood. Such factors as the improved care and feeding of children, the prevention of debilitating diseases and higher standards of community, personal hygiene, and housing have all played a part. As a result more children today are healthier and more resistant to disease. The decline in the average size of families may also be a factor in the lessened frequency of tuberculosis in childhood. Deaths of children from tuberculosis have been cut also as a result of advances in treatment and more adequate facilities for care of children coming down with the disease. In recent years the discovery of streptomycin has provided a new weapon against childhood tuberculosis, meningitis and military tuberculosis. These two types of the disease account for a high proportion of the total incidence of tuberculosis in children.

In understanding the problems relating to the child with tuberculosis it is important that a teacher have some knowledge of the disease itself. At what age levels during the school years of the child is it most dangerous as a health hazard? What forms of tuberculosis occur in childhood? What diagnostic means are available for detecting children

infected with tuberculosis? What dangers may arise from the improper care and handling of the child with this disease?

Tuberculosis is a disease which exists among increasing numbers of children as they advance through their school years. However, the years from approximately 5 to 10 are years of great resistance to and comparative safety from the disease. The years that follow, years of pre-puberty and puberty, are years of considerably greater danger in which the disease may not only be hazardous to the infected child but of danger to his classmates and others exposed to him.

There are two types of tuberculosis. The *primary* or first infection type of tuberculosis occurs when tubercle bacilli invade the body of a person never before infected with tuberculosis. The first infection type of tuberculosis is generally benign in children of school age and is usually non-communicable. The child may appear well and may even be overweight. Outward signs and symptoms are frequently non-existent, the diagnosis usually being made through X-rays and tuberculin testing. The most characteristic sign is a chronic fatigue and listlessness in a child accustomed to being alert and active. As a rule, with proper care, there is complete recovery in approximately one to two years after infection. Primary or first infection type tuberculosis may or may not require treatment in the hospital, depending on the home situation. However, it cannot be too strongly emphasized that the educational needs of the child be met in primary as well as in the re-infection type of illness, as soon as medical approval is given. The second and more dangerous type of tuberculosis is the *re-infection* type—where tubercle bacilli invade tissues of a person already sensitized by a previous infection with the disease. This type of disease is most likely to develop during the years of puberty or later, but may occur earlier.

In contradistinction to the primary type of tuberculosis, the re-infection type is often hazardous, communicable, and frequently has signs and symptoms which may be detected by the observant teacher or parent. Chronic cough with loss in weight, poor appetite and general fatigue may be indications that the re-infection type of tuberculosis exists. This type of tuberculosis usually requires long periods of hospitalization. Plans for education of the child during this treatment period are an essential part of his rehabilitation.

The most valuable procedures in the diagnosis of tuberculosis, par-

ticularly in children, are the tuberculin test, X-ray and sputum examination. A tuberculin test is usually performed in one of two ways. In the intracutaneous method, an injection of dilute type tuberculin (a sterile extract made from tubercle bacilli) is made into the superficial layer of the skin of the forearm. The patch test is performed by applying a small piece of adhesive, to which have been attached squares of filter paper saturated with tuberculin and dried, to the skin of the forearm or back. The tests are read 72 or 96 hours after application. A positive reaction indicates that the person's body has at one time or another been infected with a tubercle bacillus. It does not tell whether the person has the disease. This can only be determined by X-ray and further clinical examination. Every child reacting to the tuberculin test must be X-rayed to determine whether he has contracted the disease, tuberculosis. In all instances showing the presence of X-ray changes in the lung, examination of the sputum or gastric contents for the tubercle bacillus is essential.

A child with only a positive tuberculin test or with X-ray evidence of a healed tuberculous lesion, may engage in normal activities with children of his age without danger. The child should receive X-ray examinations at periodic intervals as advised by the physician.

Under certain circumstances, BCG (Bacillus of Calmette and Guerin) vaccination may be recommended for children exposed to tuberculosis. This vaccine, which is composed of a much weakened strain of living bovine tubercle bacilli, has been proven to be completely safe and usually produces a tuberculin sensitivity of the tissues of persons inoculated. In such individuals the negative reaction to the tuberculin test is converted to a positive reaction. It is generally believed that a person with a positive tuberculin reaction has a greater degree of protection against exposure to the tubercle bacillus than a person with a negative tuberculin reaction, particularly during adolescence and adult life. In this way the vaccine probably confers a partial immunity but the degree of protection and its duration are still undetermined and the use of the vaccine has been limited to special groups.

It is important for the teacher to realize that tuberculosis can, and usually does exist without any symptoms whatsoever in the school age group. The following signs and symptoms may occasionally be present and indicate the child needs special attention or should be referred for further study:

1. Persistent fatigue
2. Lethargy
3. Loss of appetite
4. Loss of weight
5. Persistent cough with or without expectoration
6. Symptoms indicating elevation in temperature such as flushed cheeks and moist skin

A child with the primary type of tuberculosis infection should attend school only when advised by his physician. The child's activities should be in accordance with the physician's recommendations. Instruction should be given wherever the child may be. A child with the active form or re-infection tuberculosis has no place in the classroom since he not only needs definite rest and medical treatment but also constitutes a danger to his fellow students and teachers. The chronic character of this type of tuberculosis necessitates a long period of treatment during which the child is usually able to resume his educational pursuits gradually before he is ready to leave his bed and the institution to which he is confined. When a case of active re-infection tuberculosis is discovered in a classroom, the situation should be discussed with the school nursing service, school doctor, or district health officer concerned who will be in a position to arrange for any tests of other pupils which may be indicated.

Teachers need to be aware that the attitudes and feeling of the individual child will be affected by a prolonged illness. His desire to engage in sports, fun and social life have been thwarted. In dealing with such a child, it is an advantage to the teacher to know about the child's personality *before* illness, in order to understand and help him through the transition from invalidism to normal school life. Exaggerated personality traits, such as over-aggressiveness or withdrawal are not uncommon. As a rule, with understanding and acceptance by the teacher and other adults, they are only temporary manifestations in this readjustment period. The teacher's interest in the child as a person will do much to enable him to make a satisfactory adjustment.

Children confined to bed at home or in hospitals should continue their education as soon as the physician permits. During a prolonged illness, parents and teachers may have to make a special effort and use resourcefulness to keep the child occupied and encouraged to do his best. *Youngsters worry about lagging behind their former classmates*

and about not being able to take a full program. Their school work is important, not only in keeping up morale but in preparing for further rehabilitation. Hobbies and new interest should be encouraged because of their values both in terms of relaxation and instruction. The understanding teacher will not take at face value such statements as "I do not like school" or "I'm not interested in studying." Such statements too often reflect the child's hostile feelings about his illness, which he is projecting on to the school program.

As part of the team caring for the child either at home or in the hospital, the teacher will want to coordinate her efforts to help the child with those of the parents, physicians, nurse and social worker. The psychological, social, emotional and intellectual aspects involved in each individual case must be carefully evaluated. The standards of the school-room cannot be moved into the hospital and a sick child can progress only at his own pace.

An essential part of the treatment of tuberculosis is the wise management of the patient's convalescence. The gratifications the child obtains from being ill and dependent, should be reduced to a minimum. This can best be achieved by arousing and stimulating interests, abilities and hobbies, providing opportunities which build up the child's sense of achievement and giving praise whenever possible. It is essential to provide adequate educational opportunity as early as possible for the bed-ridden as well as the ambulatory child. Elementary and high school subjects should be taught and varied suitable recreational opportunities provided. A much greater number of tuberculous children could be included in the teaching programs of the various hospitals utilizing new techniques such as radio, television, films and visual aids. Programs of education by radio should be made increasingly available to children curing at home or in the hospital.

A child who has been excluded from school attendance for tuberculosis may not be allowed to return to school until authorized by the Department of Health. In considering the provisions for education, social development and physical standards at home or in school for the child recently recovered from tuberculosis, each child presents an individual problem, one that must carefully be appraised by competent medical authority. Planning the educational program based on medical recommendation is particularly important in follow-up care. The teacher has the major responsibility for this. Frequent conferences with the public

health nurse who is in contact with the home and the physician treating the case, the parent and others should keep the teacher informed of the child's health needs. Teachers may be required to help plan the schedule of scholastic and recreational activities in relation to the student's physical limitations. This may necessitate the adaptation of the student's program in many ways. Decisions regarding the kind and the amount of activity safe for the individual patient are, in every instance, the responsibility of the physician treating the child.

It may also be necessary for the teacher to help in the preparation of classmates in adjusting to a child returning to the classroom after recovering from tuberculosis. If classmates appear to reject or avoid the child, the problem should be recognized by the teacher. She should discuss it with the medical authorities responsible for the care of the child and appropriate plans should be made to meet it. Here exists a real opportunity for health education by the teacher.

The necessity for adequate protection of teachers engaged in the instruction of tuberculous children has been fully recognized. Teachers are not expected to instruct infectious cases of pulmonary tuberculosis in the hospital or at home. All teachers engaged in the instruction of children with tuberculosis are expected to present a positive reaction to the tuberculin test.

31. Rehabilitation Program in Muscular Dystrophy *

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Although medical science has redoubled its efforts to combat the problem of muscular dystrophy, many professional and lay people have a pessimistic view of what can be done for children who suffer from this affliction. Dr. Deaver believes that the success

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of the attack on poliomyelitis can be repeated with muscular dystrophy, and that the time will come when this disease is no longer the severe problem it is today.

Under muscular dystrophy is included a group of disturbances of the skeletal musculature which is characterized by a progressive loss of muscular strength, eventually involving the entire muscular system. It is perhaps the most serious disabling condition of childhood because, unlike poliomyelitis or cerebral palsy, the child gradually becomes weaker and weaker and the majority die of a respiratory disease early in life.

The number of persons so affected is not known but more than half are children between three and 13 years of age.

Medical literature describes in detail the various types of muscular dystrophy, the signs which are evident in diagnosing the condition, but only a few lines describe the treatment which "has been for the most part unavailing."

Because of the hopeless attitude expressed in so many articles in medical literature, these children, in the great majority of cases, have not been given the care they deserve and as a result have become hopeless cripples and a burden to their families. Some of our state crippled children's commissions do not give any financial assistance for medical care of these children because of the poor prognosis. Twenty years ago much this same attitude was expressed in reference to children with cerebral palsy. The efforts of the National Society for Crippled Children and Adults, and the United Cerebral Palsy Association have resulted in more children now being given the medical care needed. The Muscular Dystrophy Association and other agencies who are interested in all handicapped children, are now directing their efforts to discovering the cause and prevention of this disease and the rehabilitation program necessary to meet the total needs of the child and his parents.

The cause of muscular dystrophy is not known and research projects sponsored by the Muscular Dystrophy Association are directed toward discovering the cause and method of prevention. It took many years of research to discover the method by which to protect children from poliomyelitis and some day, we hope in the near future, we will find the method of preventing this unfortunate condition.

Many hypotheses have been expounded as to the cause of muscular

dystrophy but most of these have fallen by the wayside because of the ineffectiveness of treatment programs based on these hypotheses. The cause is thought to be the result of some abnormal chemical and metabolic process in the muscles. There are two things we do know: (1.) There is hereditary transmission and it often affects several members of the family in the same manner and at approximately the same age, and (2.) the juvenile type is rarely found in girls.

The diagnosis of muscular dystrophy is not difficult but often it is confused with a condition called amyotonia congenital, in which there is also a weakness of muscles. The weakness of muscles in amyotonia is caused by some pathology in the nervous system, while the cause of muscular dystrophy is located in the muscles. The symptoms in amyotonia are usually present at birth or shortly thereafter while the first signs of muscular dystrophy usually occur between five and ten years of age. A differential diagnosis can be made by electrical testing of the muscles. It is important to differentiate these conditions as the program of treatment is different and the prognosis in amyotonia is more favorable.

The signs and symptoms of muscular dystrophy are often first manifest in early childhood when parents notice that the child has difficulty in climbing stairs. On walking the child throws the legs forward, the trunk is hyperextended and carried over the weight bearing extremities. These movements produce the side-to-side sway or waddling gait. As the disease progresses the child "climbs up the legs" (Gower's Sign), when attempting to rise from the sitting position. When the disease progresses to the shoulder girdle and arms the child is no longer able to stand without assistance and his ability to care for his daily needs gradually becomes more difficult. Fortunately there is never any loss of either bladder or bowel control and pain is not present.

There are various classifications of these primary muscular conditions which give one the impression they are of a different type. It seems evident, however, that a particular type simply may denote a special localization of the muscular affliction.

The *pseudohypertrophic type* is the most prevalent form of muscular dystrophy and the predominant feature is a bilateral symmetrical enlargement of the calf muscles which gives the appearance of great strength.

The juvenile scapular type occurs most frequently between the

ages of 15 and 20 years. Difficulty in raising the arms is usually the first complaint. The rate of progression is slower than in other types and many patients live to old age.

The facio-scapular-humeral type has a slow onset and the shoulder girdle and face muscles are most seriously affected.

In conditions where the cause is not known and the disability becomes progressively worse with death occurring at an early age, the tendency is to do nothing. However, a great deal can be done to prevent deformities and loss of muscle strength because of inactivity. Many of the children, when they are no longer able to walk, are put to bed and become a burden to themselves and their parents. If, however, a specific program is outlined during each stage of the disease, it is possible to add many years in which the child is able to care for most of his daily needs and not become a helpless invalid.

The two procedures in the treatment of all pathological conditions are to find a means of prevention or cure, and to develop methods of treating the symptoms as they occur.

The purpose of many research projects is to find a drug to cure or prevent muscular dystrophy. The present theory is that the cause may be a metabolic deficiency which can be helped by replacement therapy, like insulin therapy in diabetes. Dr. A. T. Milhorat of Cornell Medical College and other investigators are experimenting with various drugs, proteins, vitamins and hormones for their effect on the metabolism of the muscles.

Physical treatment depends upon the child's ability to perform the activities of daily living.

Stage 1. The child walks with a waddling gait and marked lordosis but he can climb curbs and stairs without assistance.

Stage 2. The child loses the ability to elevate the body without assistance.

Stage 3. At this stage, the child, because of increasing muscular weakness, can no longer climb curbs or stairs. He can, however, by using his arms, raise his body from the sitting position.

During these three stages there is no specific treatment indicated as the child is doing all that he is physically able to accomplish. He will not develop contractures or disuse atrophy and not be given any special exercises as he should conserve his strength to perform the functional activities necessary for daily living. If there are signs of a tight "heel

cord" it may be necessary to put on a brace in bed at night to keep heel cord from becoming tight.

Stage 4. The child reaches this stage when he is no longer able to push himself erect from the sitting position. He can, however, ambulate when on his feet.

This is the critical stage at which a decision must be made as to the future program. We find there are four types of treatment often recommended.

I. Someone lifts him to standing position and he walks about the home.

II. He is supplied with a wheel chair which has a hydraulic lift with which he can raise himself to standing position for ambulation.

III. He is placed in a wheel chair and is able to perform all daily activities except walking.

IV. He becomes a bed patient.

We have found that at this stage, in the majority of cases, the child should become a wheel chair patient. He should have a wheel chair with removable desk arms and his exercise program should consist of maintaining his ability to perform all the activities of daily living except walking. This is sufficient to prevent any disuse atrophy of the muscles.

Contractures of the ankle joint occur very rapidly when ambulation is not possible. They can often be prevented by daily passive movements of the knee and hip joints but the ankle joint often becomes contracted even with the best of treatment. Our procedure is to prescribe double bar short leg braces with extension in the lateral bars for growth, stirrups attached to high shoes with a 90 degree ankle stop.

If the child is unable to raise himself from a chair it indicates that the weakness has progressed to arms and shoulder girdle muscles. At this stage there is a great danger of falling and breaking bones. Once a child has a fracture and is placed in bed he develops a disuse atrophy and seldom is ever able to get out of bed again. Once a child is in bed, contractures, scoliosis and weakness develop rapidly and he becomes a hopeless invalid.

The hydraulic lift is indicated in some selected cases where the patient is older and still capable of performing many useful and gainful activities with the hands.

Stage 5. In the wheel chair he is able to perform all the activities of daily living except ambulation.

With his ankle braces, deformities are prevented, and rolling his wheel chair and performing necessary toilet and eating activities maintains his strength.

Stage 6. Weakness prevents him from performing his bed, toilet and wheel chair activities.

There is nothing much that can be done but to assist him when and where it is needed. He should, however, not remain in bed and be placed in his wheel chair each day.

Stage 7. Weakness in the back and shoulder muscles prevent him from sitting erect.

At this stage, it is still important for the patient to continue using whatever muscle power remains. By means of a Knight spinal brace the child can still be held in good position in his wheel chair and perform some self-care activities.

Stage 8. The child has become so weak that he must remain in bed.

The only form of therapy indicated is positioning the patient and moving the joints through their normal range of motion to prevent deformities. Because of the weakness of chest muscles, respiratory infections often prove fatal.

The procedures outlined make it possible for the child with muscular dystrophy to function to the limit of his capacity and to ease the burden of parents in caring for his daily needs. By marking on a chart the age at which the child reaches each stage of lowered functional ability it is possible to study the progress of the disease and to outline a specific program of therapy. The methods of helping the child in performing self-care activities, such as moving from bed to wheel chair, have been published in book form. It is Edith Buckwald's *Physical Rehabilitation for Daily Living*, published by McGraw-Hill Book Company, Inc., New York.

Some day, through research, this disease will be conquered. Until that day arrives we must help the child live as normal a life as possible within the limits of his abilities.

The Child with a Visual Handicap

Many problems of vision are found among children, some so serious as to necessitate special educational services. About one out of every five thousand children of school age is blind. The National Association for the Prevention of Blindness defines the blind child as one who "... has central visual acuity of $\frac{20}{200}$ or less in the better eye, with correcting glasses; or central visual acuity of more than $\frac{20}{200}$ if there is a field defect in which the peripheral field has contracted to such an extent that the widest diameter of visual field subtends an angular distance no greater than 20 degrees." For over a century, state and private schools have shouldered the responsibility of educating most of these children, although some have been educated in special schools or classes in the community. In recent years the trend has been in the direction of placing the blind child in the regular classroom if he is able to adjust to such a setting.

It is estimated that about one out of every five hundred school age children are classified as partially sighted. The child who is partially sighted is usually defined as having visual acuity of $\frac{20}{70}$ or less in the better eye after the best possible correction and who can use vision as the main channel of learning. In addition some children are included who in the opinion of eye specialists will derive benefit from special provisions for partially sighted pupils. The education of children so afflicted has always been an accepted responsibility of the public schools. The educational provisions for the partially seeing have varied from none beyond those available to all pupils to very special services in

"isolated" classes. The present trend is to minimize segregation by placing the partially seeing child with children of normal vision.

There are other children with visual difficulties besides the blind and partially seeing. Some children with visual handicaps require no special attention from the schools; others, however, require special consideration from the school nurse, teacher, or guidance counselor. A few of these visual impairments are: destruction or loss of an eye; strabismus, or cross-eyedness; night blindness; and color blindness.

The articles in this section have been selected to give educators a broad understanding of the problems associated with visual handicaps in children. Although the prevalence of partially sighted children is greater than that of blind children, more articles about the blind have been included because of the trend toward placing more blind children in the regular grades and because the education of these children presents a considerably more unusual problem for the classroom teacher. C. Edith Kerby's discussion of causes of blindness presents a general orientation to the problem. With this background, the reader is ready to consider the methods used in educating the blind, as discussed by Berthold Lowenfeld and Doris Gray. These articles are followed by two on the education and adjustment of children with partial sight. The chapter concludes with an article on color blindness, by George A. Peters. Although the child who is color blind is not generally classified as exceptional, his condition may handicap him educationally and vocationally. Few educators know what color blindness is, or how this impairment is detected. In the opinion of the editors, teachers, in particular, can profit from the information presented.

32. Causes of Blindness in Children of School Age*

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An understanding of the causes of blindness will permit a more intelligent approach to the problem of educating blind children. Answers to the following questions will be found in this report, which is based on the records of 4,426 of the estimated 7,000 blind students in the United States, including Hawaii and the District of Columbia, during 1954-55: At what age is the onset of blindness most common among children? What role do hereditary factors play in blindness? Is there more blindness among girls or boys? Does the study of causes indicate a greater need for emphasis on the prevention of blindness?

This report is one in a long series of studies by the National Society of causes of blindness in children of school age dating back to the school year 1932-1933. Their purpose is to provide a basis for determining the most important problems in preventing blindness in children. Repeated at frequent intervals, they have also enabled us to evaluate the prevention measures that have been put into operation, and to take note of new causes requiring attention as they appear.

The cooperation of residential schools for the blind and city school systems having special education programs for the blind, which have provided individual diagnostic records, has made it possible for the Society's statistical division to continue these studies. The cases reported represent a majority of the children currently enrolled in all such school units. The diagnoses of eye conditions have been made by a large number of ophthalmologists who perhaps differ in their professional judg-

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ments. A standardized method of statistical analysis and the classification worked out by the Committee on Statistics of the Blind have been utilized.

The blind covered in these studies are children of kindergarten through senior high school grades. The present report covers records for 4,426 of the total of nearly 7,000 (estimated) blind students in the United States, the District of Columbia and the Territory of Hawaii in 1954-55.

The special schools occasionally enroll a child of nursery school age and some students are kept on beyond 20 years of age, but 93 per cent fall between 5 and 19 years of age. In most cases (87 per cent) the age at onset of blindness was under 5 years. About 52 per cent were already blind at birth and many others who became blind in the early years of life were also affected by some influence operating before birth. Throughout this entire series it has become increasingly evident that *factors affecting early development of the eyes constitute the most important problem in preventing blindness in children.*

TABLE 1

Percentage Distribution of Blind Children of School Age in 1954-55
by Age and by Age at Onset of Blindness

<i>Age Group</i>	<i>Age as of 12/31/54</i>	<i>Age at Onset of Blindness</i>
Before birth		51.5
At birth		2.6
Under 1 year		25.2
1 to 4 years	.3	7.6
TOTAL—Under 5 years	.3	86.9
5 to 9 years	30.4	6.4
10 to 14 years	36.2	2.9
15 to 19 years	26.3	.7
20 years and over	6.4	
Age not reported	.4	3.1
TOTAL—All Ages		
Per cent	100.0	100.0
Number in study	4,426	4,426

Changes in Blindness Rates

From the count of records supplied by reporting units and the enrolment figures for non-reporting units as furnished by the American

Printing House for the Blind, it was found that there were nearly 7,000 blind children among the 35,000,000 pupils attending school in 1954-55, a prevalence rate of approximately 20 per 100,000.

For the early years of the study enrolment data were inadequate. Although the approximate figures shown here (see Table 2) seem to indicate that between 1933-34 and 1941-42 the blindness rate increased slightly (from 21.2 to 22.3) the number of schools and the geographic areas from which reports were received changed so markedly during this period that apparent slight changes in rates are without significance. But by 1951-52 the estimated rate had decreased to 18.8. As the chart shows, it might have continued to decrease except for the appearance of a new eye disease (retrolental fibroplasia).

Sex as a Factor

As in previous years, the blindness rate for 1954-55 was appreciably higher for boys than girls. Population estimates of the Bureau of the Census for 1955 show an average of 104 males to 100 females of school age, but our ratio for the blind is 131 boys to 100 girls. This would indicate a blindness rate for boys that is 26 per cent above that for girls.

A comparative analysis by sex and cause of blindness, based on data in our 1945-46 report, showed that the rates for almost all causes were higher for boys. This was true not only for blindness due to injury, which might be expected because boys engage in more dangerous activities, but for the defects of prenatal origin as well.

Rates by Race

From time to time approximate blindness rates have been estimated for broad racial groups but, due to the growing practice of dropping the item "race" from records, it is no longer feasible to produce data by race. The differences are of interest, although they probably cannot be attributed to the racial factor per se. Variations in environment, especially those affecting health status of individuals such as their access to medical facilities, are reflected in the following comparisons, which are from our 1951-52 study.

As of 1951-52 the estimated rate for Negroes was nearly 20 per

cent above that for whites (21.1 vs. 17.7 per 100,000). The higher rates were found chiefly in blindness due to the infectious diseases (syphilis and ophthalmia neonatorum) and to defects of prenatal origin. However, it is also true that there has been a decrease in blindness rates for these causes among Negroes over the period covered by these reports.

TABLE 2

Estimated Blindness Rates, by Cause for Children of School Age,
in Selected Years

<i>Etiology</i>	<i>Rate per 100,000 Pupils Enrolled</i>		
	1933-34	1941-42	1954-55
Infectious Diseases	6.1	5.4	1.5
Ophthalmia neonatorum	2.3	2.4	.3
Syphilis	1.1	1.2	.3
Toxoplasmosis			.1
Rubella			.1
Meningitis	.4	.5	.1
Tuberculosis	.1	.1	.1
Other and not specified	2.1	1.2	.5
Injuries	1.6	1.7	1.0
Poisonings	*	*	3.8
Excessive oxygen			3.8
Other	*	*	*
Tumors	.5	.6	1.0
General Diseases	.3	.3	.1
Prenatal Influence	10.8	11.7	11.2
Genetic origin (established or presumed)	2.4	2.8	2.9
Cause not specified	8.4	8.9	8.3
Etiology Undetermined or Not Specified	1.9	2.6	1.3
TOTAL—All causes	21.2	22.3	19.9
Rate			
Number in study	2,702	4,604	4,426

* Less than one-tenth of one per cent

Causes for which the Negro rates were lower than those for whites are "poisonings, excessive oxygen" and "tumors." It now seems probable that this is one instance in which *limited* access to advanced medical facilities proved a boon to Negro children. (See discussion of excessive oxygen and retrolental fibroplasia.)

Causes of Blindness

Data in the present report show causes among children of school age as of 1954-55 and changes that have occurred since 1933-34. Only the causes of blindness occurring from before birth through the adolescent years are considered here.

The basic tabulation in the reports on causes of blindness is a detailed cross-classification showing distribution of cases of blindness both by types of eye affections and their causes. That table shows at a glance how eyes are affected and by what causes. Only selected data from it can

TABLE 3

Causes of Blindness in Children of School Age by Etiology, 1954-55

Etiology	Per Cent	
	Total Pupils	New Pupils
Infectious Diseases	7.4	4.8
Ophthalmia neonatorum	1.6	.1
Syphilis	1.4	.6
Toxoplasmosis	.7	.6
Rubella	.6	.3
Meningitis	.6	.3
Tuberculosis	.4	.4
Other and not specified	2.1	2.5
Injuries	4.9	4.3
Sharp or pointed objects	1.2	.6
Blows or falls	1.0	.4
Firearms, airguns, fireworks, other explosives	.9	.9
Burns	.3	.2
Other and not specified	1.5	2.2
Poisonings	19.3	28.5
Excessive oxygen	19.3	28.5
Other	*	
Tumors	5.1	5.0
General Diseases	.7	.6
Prenatal Influence	56.1	49.1
Genetic origin (established or presumed)	14.3	11.1
Cause not specified	41.8	38.0
Etiology Undetermined or Not Specified	6.5	7.7
TOTAL—All Causes	100.0	100.0
Per Cent	4,426	793
Number in study		

* Less than one-tenth of one per cent

be shown here because of limitations of space.¹ (See Tables 2, 3, and 4.)

In Table 2 it will be noted that while the general trend in the blindness rate for the school age is downward this is not true for all causes. Substantial decreases have occurred in cases due to infectious diseases and those due to injuries. Other causes have remained more or less stationary, or even increased. The reasons behind the successes and failures in preventing blindness, as seen in these figures, can best be explained by considering the various causes separately.

Infectious Diseases

Table 2 shows a 75 per cent decrease in the rate of blindness due to infectious diseases between 1933-34 and 1954-55. These data prove the effectiveness of public health measures in preventing blindness due to infections such as ophthalmia neonatorum. A comparison of the figures for the latter cause as of 1906-07 and 1954-55 is even more impressive. Back in 1907 ophthalmia neonatorum accounted for 28.2 per cent of the blindness in a sample group of 206 children in schools for the blind. Although it had been demonstrated that use of prophylactic drops in the eyes of newborn infants would prevent this disease, prophylaxis did not become general practice until this and other control measures had been made mandatory by state public health laws. As state after state passed legislation on this topic, cases of blindness from ophthalmia neonatorum became less and less frequent among new pupils entering the schools for the blind. By 1954-55 the percentage of ophthalmia neonatorum cases among new pupils entering schools for the blind had dropped to 0.1 per cent.

Similar public health measures, such as requiring premarital and prenatal blood tests and treatment of affected parents, have effected a drop of 73 per cent in blindness due to syphilis in this age group.

We can point to the fact that there have been no new cases of blindness due to diphtheria, smallpox or typhoid in these studies for several years and that new cases due to meningitis, measles and tuberculosis are seldom seen as still further evidence of the value of improved health procedures in preventing blindness.

¹ The cross-classification by cause and tables showing other factors are available (NSPB publication No. 110A).

Now that medical research has disclosed that rubella (German measles) during pregnancy of the mother and toxoplasmosis can cause blindness in children, these have been added to our listing in the infectious disease group. But more important is the fact that public health authorities are alerted and working on prevention of blindness from these diseases.

Injuries

The eye accidents responsible for blindness in these children occurred most frequently in play or sport, but there were also a considerable number of birth injuries. The greatest hazards to the eyes of children are (a) sharp or pointed objects, such as sticks, wires, and knives, (b) severe blows or falls (as when a child is struck by an auto, or a bat, ball, rock; or falls from a tree, swing, window, horse), and (c) objects or substances having an explosive action, such as guns and dynamite caps.

Blindness from injury is decreasing. Measured by our estimates the rate of child blindness due to accidents decreased between 1937-38 and 1954-55, by 47 per cent. These figures show the effect of the safety education aimed at parents and children and of the legislative controls set up to regulate use of the more dangerous items such as fireworks and BB guns.

Another item of special interest, particularly to physicians, is the indication that cases involving sympathetic ophthalmitis in the uninjured eye appear to be diminishing at an even greater rate than the average for all injuries. This fact should, however, serve as a reminder that our data on blindness due to trauma cannot be used as an indication of the extent or seriousness of eye hazards to children. The figures given here necessarily include only cases in which both eyes are very badly affected. Accidents involving injury to one eye only would be excluded, even if the eye was enucleated or all vision lost, as would cases resulting in quite serious damage to both eyes which falls short of meeting the definition of blindness.

Heredity

A routine check of names in an alphabetical file and questions to school superintendents regarding relationships showed sufficient family history to indicate that 14 per cent of blindness among children of school age could be presumed due to heredity. This figure is believed to be underestimated, because information needed to establish the genetic origin of cases in our files is often missing or may be late in coming to light. If members of affected families are widely scattered their case records are not likely to include significant facts concerning relatives. Hence, there is need for a centralized file in which records of persons with serious eye defects known or suspected to be hereditary may be brought together on a family basis. Proof of genetic patterns established in this way would provide a sound basis for counseling potential parents in the family groups. The fact that family records are not readily available now may explain why the hereditary blindness rate shows no tendency to decrease.

Excessive Oxygen and Retrolental Fibroplasia

Retrolental fibroplasia deserves special mention in any discussion of causes of blindness in children. The full effect of this eye disease on the blindness rate for the school age group cannot even yet be seen in the data, but it is now possible to present the essential facts of its short dramatic history.

Retrolental fibroplasia (meaning fibrous tissue behind the lens) is the name given to this disease by its discoverer, Dr. T. L. Terry, a Boston ophthalmologist. It was subsequently shown that his early cases had been seen in a late stage of the disease and that the disease actually starts in the retina, where developing blood vessels are damaged and, in the advanced stage, the scarred retina becomes detached and floats forward toward the lens.

Dr. Terry first recognized this affection in 1941 as a distinctly new type of maldeveloped eye in infants, and noted that it occurred in premature babies. Soon thereafter it began to appear sporadically in premature infants in other cities in the United States and in some foreign countries. In the United States its frequency increased rapidly, so that by 1950 it accounted for approximately half of the blindness in children

of preschool age.² No effective treatment had been found up to that time. Of the many suspected causes none had been definitely incriminated.³

Two events in 1951 contributed substantially to the solution of the problem of what causes retrolental fibroplasia. One was initiation of a series of conferences of interested ophthalmologists, pediatricians, etc. leading to substantial coordinated research; the other was the clue provided by physicians (M. Lelong in France, V. M. Crosse in England, and K. Campbell in Australia) to oxygen as the possible cause of retrolental fibroplasia. By 1952 evidence that oxygen administered to premature babies routinely and in high concentrations caused retrolental fibroplasia began to appear in preliminary reports from investigators.⁴ By 1954 substantial research had established proof of this association of excessive oxygen and retrolental fibroplasia⁵ and pediatricians were advised to curtail its use.

As word of this recommendation spread the effect was quickly reflected in very substantial reductions in the number of new cases of blindness due to retrolental fibroplasia reported to agencies for the blind. Hence it may be anticipated that (1) the number of blind in the preschool age, which had begun to fall off as of 1954, should be down to about its pre-retrolental fibroplasia level by 1960; (2) the number of blind children entering braille schools and classes will continue to increase until 1960 and then drop off.

Tumors

Blindness due to tumors of the eye or brain accounted for 5 per cent of the cases. This is the only known cause other than retrolental fibroplasia which has shown a tendency to increase. As its increase began about the time of the appearance of retrolental fibroplasia, which is not

² C. Edith Kerby, "Blindness in Preschool Children," *Sight Saving Review*, 24: 15, Spring 1954.

³ Leona Zacharias, "Retrolental Fibroplasia: A Survey," *American Journal of Ophthalmology*, 35: 10, pp. 1426-1454, October 1952.

⁴ A. Patz, L. E. Hoeck, and E. De la Cruz, "Studies on the Effect of High Oxygen Administration in Retrolental Fibroplasia. 1. Nursery Observations," *American Journal of Ophthalmology*, 35: 9, pp. 1248-1253, September 1952.

⁵ V. Everett Kinsey and F. M. Hemphill, "Etiology of Retrolental Fibroplasia and Preliminary Report of Cooperative Study of Retrolental Fibroplasia," *Transactions, American Academy of Ophthalmology and Otolaryngology*, 59: 1, pp. 15-24, January-February 1955.

easily differentiated from retinoblastoma, there is reason to suspect that some cases attributed to tumor may actually have been retrolental fibroplasia. However, some of the increase may be due to the greater chance of survival of a child after removal of tumors in the eye or brain due to improved surgery. *m. j. j.*

Unknown Prenatal Factors

At least two out of five of the cases of blindness in children of school age must still be classified as due to an unspecified prenatal influence. It is quite possible that if intensive study were made soon after birth of all infants showing evidence of congenital eye defects, more cases of this type might be found to be due to a known cause such as heredity or some infectious disease of the mother during pregnancy. Nevertheless, the fact that the proportion of such cases included in each successive study has remained high strongly suggests that there must be other factors, not yet identified, which can cause maldevelopment of eyes. What these factors are should be determined by research similar to that which solved the problem of retrolental fibroplasia. It is quite possible also that information brought to attention in the retrolental fibroplasia studies could be the basis for initial investigations into other causes of maldevelopment of eyes. Proof of causal relationships must of necessity precede the introduction of appropriate preventive measures.

Incomplete Records and Services

In the studies many cases are classified as "unspecified" as to cause. An ophthalmologist seeing a child at a school for the blind for the first time may be at a disadvantage in determining the cause of blindness. If the eye affection he sees has progressed to an advanced stage, he cannot be expected to determine exactly how it started or what caused it unless he has access to facts regarding health and family history available from parents and from physicians, hospitals or agencies that have previously served the child. In many cases school superintendents can obtain this information for the examining ophthalmologists if they have a worker on the staff qualified to make the necessary investigations. If not, service of this type can, of course, be supplied by another agency.

A state agency having overall responsibility for services to visually handicapped children would seem to be the logical custodian of medical

histories of these children. Its centralized files could be used both by research workers and by agencies giving services to the children. Centralization and sharing of information aids in elimination of gaps and duplications in the health, welfare and educational services needed by the individual child. The time has long passed when a school for the blind would routinely admit any child for braille instruction without inquiring into the nature of his eye affection, the degree of remaining vision and what, if anything, might be done to improve both. Nevertheless, incompleteness of some records sent for inclusion in our statistics indicate that in many schools too little is known about the children's eye conditions. Insufficient follow-through on recommendations for corrective eye care may also be suspected when the only record received for a pupil shows correction recommended many years ago but no later re-examination.

Diagnostic information could be used by the schools, not only for insuring attention to the children's medical needs, but for better understanding of their visual handicaps by their teachers. The purposes of school staff members would be better served if ophthalmologists examining children would add to the diagnoses detailed analyses of the functional handicaps of each child, by type and degree.

Types of Eye Affections

Among the types of eye affections seen most frequently in blind children of school age are the various *anomalies of structure* (27 per cent of the total). (See Table 4.) These include buphthalmos, an eye stretched to large size by excessive intraocular fluids, occurring in congenital glaucoma; microphthalmos, the eye which is too small; anophthalmos, the eye which fails to develop at all; coloboma, a cleft in one or more parts; albinism, a lack of pigment; or aniridia, the eye which lacks an iris. In many cases there are multiple structural defects. Most anomalies are quite easily identified in the newborn infant, but some defects (e.g. malignant myopia) are rarely congenital but appear at an early age and progress rapidly.

These structural defects may be reported as inherited, but most often they are simply designated as congenital or prenatal in origin and the cause is not known. This is true also of some other eye affections which may not be evident or may be present only in an incipient stage

at birth but progress to blindness years later. Among the latter are congenital cataract and retinitis pigmentosa. Together these developmental affections account for nearly half of the blindness in this age group.

TABLE 4

**Causes of Blindness in Children of School Age
by Site and Type of Eye Affection—1954-55**

<i>Site and Type of Eye Affection</i>	<i>Per Cent of Total Pupils Enrolled</i>
Eyeball in General	
Structural anomalies 27.0 (multiple 10.0, buphthalmos 6.5, albinism 3.1, myopia 3.0, microphthalmos 1.3, coloboma 0.9, aniridia 0.6, anophthalmos 0.4, other and not specified 1.2)	30.3
General degenerative changes 1.4	
Other and not specified 1.9	
Cornea	3.3
(ulcerative keratitis 1.1, interstitial keratitis 0.8, other and not specified 1.4)	
Crystalline Lens	13.9
(cataract 13.1, dislocated lens 0.8)	
Uveal Tract	6.6
(chorioretinitis 3.0, uveitis 2.3, choroiditis 0.8, other and not specified 0.5)	
Retina	27.6
(retrolental fibroplasia 19.3, retinoblastoma 2.4, retinitis pigmentosa 2.2, macular degeneration 1.5, detached retina 0.6, retinitis 0.4, other and not specified 1.2)	
Optic Nerve, Optic Pathway and Cortical Visual Centers	13.0
(optic nerve atrophy 7.3, retrobulbar and intracranial lesions 5.1, neuroretinitis 0.4, other and not specified 0.2)	
Vitreous	0.1
Site not specified	5.2
TOTAL—All Causes	100.0
Number in study	4,426

Moreover, there seems to be little hope that the number of such cases occurring can be substantially reduced until medical research has provided the explanation of processes interfering with normal development of eyes and their causes.

Affections of the retina account for 28 per cent of the blindness in the school age group as of 1954-55. Retrolental fibroplasia, now the largest single cause of blindness in children, was responsible for 19 per cent of the total and 29 per cent of the new pupils entering in that year. The other retinal affections are chiefly the degenerative types, such as retinitis pigmentosa and macular degeneration, which are usually hereditary or of prenatal origin. A type of tumor known either as retinoblastoma or glioma is also prominent in the retinal group.

The affection of the crystalline lens most frequently seen is cataract, with 13 per cent. As mentioned above these cases are chiefly of prenatal origin. In several instances hereditary histories covering several generations are on record for these children. Other etiologies noted are infections, including rubella during pregnancy of mother, and injuries.

Affections of the optic nerve account for 13 per cent of the blindness. These too are often recorded as of prenatal origin, but some are related to specified causes, especially those affecting the nervous system, such as brain tumor, concussion injuries, syphilis, encephalitis and meningitis.

Uveal tract affections were responsible for 7 per cent of the total. The known etiologies of these cases were infectious diseases and injuries but far too many are of prenatal origin with cause not specified or simply etiology "unknown."

Corneal affections account for 3 per cent of the total. These are chiefly due to infections. Some are due to injury and several are of unknown cause.

Eye Care

Our studies do not include summary or evaluation of the eye care provided for blind children. The average first record of an eye examination forwarded to us covers information on the diagnosis, age at onset of blindness, visual acuity and recommendations for eye care, as determined by the school ophthalmologist about the time the child enters a school or class for the blind. In subsequent years the school may forward a record of re-examination of the child, or a notation of a change in his vision. Not all schools are doing this. Many are never able to fill in the information missing in the first examination.

Generally speaking records now available in most school units are

not entirely adequate for our study of causes. Their brevity suggests that intensive study of a case, either before or at the time of entering the school for the blind, is the exception rather than the rule. It seems evident also that even school superintendents who are aware of this need are unable because of budget and functional limitations to do much about it directly.

We are apparently missing opportunities to add to medical knowledge, as well as to increase eye care for these handicapped children because health and educational services, organized separately on a functional basis, are not also coordinated by some central agency having over-all responsibility.

Coordination of Services

In order to accomplish its own educational objectives the school needs an awareness of the total needs of each child and how these may be met. Actually it is not necessary or desirable that the school provide non-educational services, but school authorities need to have knowledge of medical examinations made elsewhere. They should know the findings and recommendations, whether parents need help in understanding or carrying out recommendations, and where such assistance may be secured.

If able to provide social services the school might take on general supervisory responsibility for securing various services required by the children during their school years. If on the other hand a visually handicapped child is routinely registered with an agency able and willing to serve him, the school can cooperate with such agency. It is important also that services be made adequate to meet the total need, so that underprivileged or segregated groups may not be neglected.

Case Finding

Whether planning for centralization or merely for cooperation and coordination of services, it is essential to give more attention to case finding.

Examination of siblings of a child already identified as visually handicapped could give a good lead to other possible cases. But for more adequate case finding it would be advisable to include in the routine

health supervision of every child at least one thorough eye examination in his early preschool years.

Summary

Comparison of data in a study of causes of blindness among children of school age as of 1954-55 with those of similar reports, dating from 1933-34, shows several significant changes:

1. The blindness rate due to infectious diseases has been progressively decreasing. The estimated rate for 1954-55 is 75 per cent under that of 1933-34. The most important decreases occurred in ophthalmia neonatorum and syphilis.

2. The rate due to injuries decreased 38 per cent from 1933-34, or 47 per cent from its high point in 1937-38.

3. These decreases have been largely offset by an increase in the number of blind and rate of blindness because of retrolental fibroplasia—a maldevelopment of the retina in premature infants due to excessive use of oxygen in their early care. This disease accounted for one out of five of the blind pupils enrolled in school in 1954-55, but is expected to rise to one-half of the total by 1960.

4. Heredity remains an important cause of blindness in children.

5. The most consistent finding in these studies is the fact that the largest group of cases must be classified as of prenatal origin with *cause unknown*. Research that will determine the causes of maldevelopment of infant eyes is badly needed.

6. The number of case records with undetermined or underminable etiology, and the number with unspecified site has the effect of underestimating the importance of known causes.

7. There is evidence that both the services to individual children and the research leading to prevention might be improved by definite planning for early case finding, for more exhaustive examinations, and some centralization of information and responsibilities.

33. The Child Who Is Blind *

BERTHOLD LOWENFELD

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It is difficult to suggest in one brief writing the best methods for meeting the educational needs of blind children. Yet Lowenfeld has managed to present some succinct guiding principles. In addition, his article helps to answer such questions as these: What should be the role of public schools in educating the blind? What should be the role of the residential school? How much segregation is needed?

In the attempt to answer the question what is "special" in the education of the blind, or what distinguished educational methods and facilities for the blind from those regularly offered, a point of departure must be found to permit a definition of the issue. It is proposed that the following formulation of the aim of education of blind children be accepted for this purpose: *Education must aim at giving the blind child a knowledge of the realities around him, the confidence to cope with these realities, and the feeling that he is recognized and accepted as an individual in his own right.* This formulation contains three interrelated factors: Knowledge of the realities of the world we live in is given to the blind child through the application of special methods in his teachings; the confidence to cope with these realities deals with an emotional factor that needs special consideration due to the child's blindness; and recognition and acceptance as an individual in his own right deals with the blind child's social position, which depends upon his own sociability as well as on the readiness and willingness of his environment to accept him.

Our inquiry will, therefore, concern itself with the areas in which

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the blind child needs special consideration: first the methodology of the education of the blind, and second the emotional problems caused by blindness and by the specific social atmosphere which blindness creates in the blind child and his environment. Part three will review the educational facilities and attempt to determine their place in meeting the essential needs of the blind child.

Special Methodology of the Education of the Blind

ADAPTATION OF LEARNING TOOLS. Methods in the education of blind children are determined by the needs of the blind child. Obviously, lack of sight necessitates certain adaptations in equipment and skills, particularly in the so-called tool subjects. Some standard procedures in this area are: braille reading and writing, the latter with stylus and slate or with a mechanical braille writer; typewriting, preferably from the third or fourth grade on; Talking Book use, as a supplementary reading medium to compensate somewhat for the slowness of braille reading; mental number work and use of an arithmetic slate as well as braille for computation; diagram drawings and use of solid, plane, and wire forms in geometry; maps either embossed or in relief for the teaching of geography. In the study of the sciences demonstrations and material must appeal to the senses of touch, hearing, or smell if they are to be meaningful to the blind student.

The special value of modeling as a creative activity and of drawing and painting for those children with sufficient visual residues is gaining increased recognition. Dramatic art activities, from dramatizing of a fairy tale to the staging of a full length play, offer special opportunities for the correction of undesirable habits of posture, of standing and walking, of speaking, and various behavior patterns. Music is the art most widely associated with blindness although there is no reason at all for the common belief that blind children are more musical than others. The learning of all instrument playing demands much greater effort of the blind musician. He must read braille score with his fingers and thus cannot use them in playing his instrument. Therefore, he must rely upon his memory in practicing as well as in performing. In spite of this, music is recognized as perhaps the most important art activity of the blind even if its vocational application should be encouraged only for those with exceptional talent.

Handicrafts have made their place in the education of the blind and various skills are taught such as wood-working, metal-working, pottery, weaving, and basketry. Homemaking and household arts are stressed with blind girls. In addition to such prevocational training, blind students also must learn about actual working conditions and be prepared for the real demands of a job. Courses in practical living, in vocational information, and in machine and tool use are important for blind children who do not have as easy access to such information as seeing children.

Physical education and recreation are essential parts of a good school program. Calisthenics, gymnastics, tumbling, wrestling, skating, folk dancing, track and field sports, and swimming are some of the activities that need only slight adaptation. Hiking and camping are particularly enjoyed by blind youngsters and offer opportunities for the observation of nature and animal and plant life. Activities which can be carried on into adult life should be especially cultivated, though competitive sports have their own value in encouraging stamina and effort.

SPECIAL METHODS. Special education of the blind must practice certain educational methods which are based on the psychological effects of blindness. The following five principles are essential parts of a special methodology.

✓ *Individualization.* Modern education recognizes that each child is an individual and provides for individual differences by various administrative and instructional means. A severe visual handicap adds a number of individual characteristics to those generally recognized. The degree of the visual defect, the cause of blindness, the age at onset of blindness, the eye condition, and any eye care required are some of the factors which must be considered in dealing with each child. In addition to them the blind child's home environment plays an all-important role during his preschool years and the teacher should consider its influence, past and present, on the child and his actions and reactions. It is for these and other reasons that classes for blind children should be kept small, six to eight pupils on the elementary level and up to about twelve later on.

✓ *Concreteness.* Blind children react with all their senses to the stimuli received from their environment. But only through touch observation can they gain an actual knowledge of the objects surrounding

them, of their shape, size, weight, hardness, surface qualities, pliability, and temperature. Hearing has its greatest value as a medium of social contact, as a source of descriptive information and as a sense-giving clue to the presence, location, or condition of objects. An actual knowledge of the object world and its spatial characteristics can only be gained through concrete factual observation. This of course is not always possible and therefore models of objects are an important teaching aid. If objects are too large the models represent them in a contracted form; if objects are too small the models enlarge them. Observation in reality is, however, preferable because a replica or model is always in some way incomplete or distorting and the children must be made to understand this. Concreteness in teaching helps the blind child to avoid falling into a pattern of unreality and verbalism which may prevent his realistic awareness of the world and its social and economic demands upon him.

✓ *Unified Instruction.* The lack of vision which serves as a unifying sense leaves the blind child at a serious disadvantage in experiencing things and situations in their totality. He gains many impressions by hearing, smelling, feeling air currents and temperature changes, and by touching objects or parts of them. These varied impressions need unification and structure in order to become meaningful experiences. The unit plan of instruction offers the best opportunity to practice this organization of experiences. It supplies blind children with information which they cannot gain by observation or by casual contact. Such units as the grocery store, the farm, the postoffice give blind children information which seeing children can be assumed to gain in the natural course of their growth.

✓ *Additional Stimulation.* The teacher of blind children must provide them with opportunities for experiences which they cannot gain on their own. Study excursions, field trips, museum visits take the children to places where they gain actual knowledge of objects and situations. Museum loans, classroom visits of interesting people, radio programs, bring desirable experiences to the classroom. Preparation and follow-up work are essential parts of these activities. The most important element is increasing the blind child's ability to get about and secure stimulation by himself. How to learn his way in familiar and unfamiliar surroundings is a never-ending task that begins with the blind child's first steps. The necessary awareness of the environment and of changes in it needs cultivation from early childhood on. Later,

during the school years, blind children should also learn about all other possible aids in getting about, such as guide-dogs, human assistance, and coping with all means of transportation. Exercises in mental orientation are an essential part of travel instruction. They start with a mapping out of the classroom and extend gradually to orientation in the community.

Self-activity. Blind children cannot learn by visual imitation the many actions and skills which come easily to seeing children. The blind infant, for instance, does not reach or crawl for objects because they do not attract him. He must learn by tactual observation certain actions and behavior patterns, which makes his learning somewhat slower and more difficult. Also, conforming with the group and its behavior demands cannot be learned by watching others and must be practiced under guidance. The basic patterns and sequences of development are the same for blind and seeing children but the blind child's rate of development may be slower, particularly in such areas as prehension, feeding, walking, talking, and socialization. Training and guidance must meet and encourage the development of his maturing functions. By learning to do as many things for himself as desirable and compatible with a soundly conceived time-economy, tendencies toward daydreaming, inactivity, and "blindisms" (awkward behavior patterns such as shaking the head rapidly) may be overcome.

Emotional-Social Factors

Students of the psychological effects of blindness agree that blind children do not show emotional disturbances because of their blindness as such. However, since they grow up and live in a world geared to the needs and sensory equipment of seeing people, they are confronted with a great many difficulties which may cause more or less severe emotional disturbances. Special education must be aware of this problem and sensitive to the blind child's emotional reactions. It must help him to gain confidence in his own abilities in a world that is not designed for his sensory equipment. In discussing educational methods, Cutsforth states: "The problem that is facing the educators of the blind, whether they realize it or not, is the task of reshaping their training so that it will enable the blind to live in harmony with themselves and in mental and social comfort in the seeing society in which they must ultimately

dwel." The seeing educator of blind children must make every effort to have his children experience the world through their own senses without imposing upon them the visual approach that dominates his own observations, experiences, and imagery. This, however, should not create a different world for the blind child, but rather lead to a fuller utilization of those sensory aspects of objects and situations which he can experience with his own senses. Viktor Lowenfeld in applying this principle to art education of the blind says, "But there remains the sad and depressing experience that the 'seeing taste' of physically normal 'educators' is determining the way of expression and production of the blind. It is time to realize that the most primitive creative work born in the mind of a blind person and produced with his own hands is of greater value than the most effective imitation."

The attitudes toward blindness in the social environment of the child, particularly the parents' reactions to him as a blind child, are of greatest importance. Sommers distinguished five types of parental reactions: acceptance of the child and his handicap, denial of the effects of the handicap, overprotectiveness, disguised rejection, and overt rejection. Teachers of blind children who, if they are sincerely interested in their work, cannot help but become emotionally attached to their pupils, are subject to the same reaction patterns as parents. The teachers also will be of greatest value to their children if they develop an attitude of acceptance of the child and his handicap, not denying its influence but recognizing it and adapting their methods to it; not overprotecting the child but giving him the experiences which he needs and should have in order to be prepared for independent life; and certainly not rejecting him either in disguised or overt form. If a teacher should have negative feelings about blind children or working with them—and personal experiences may explain such feelings—he should for his own and his pupils' sakes, leave this special field.

Special Facilities for the Education of Blind Children:

RESIDENTIAL SCHOOLS. Following the pattern established by the first school for blind children in Paris, in 1785, the educational provisions for blind children in the United States took the form of residential schools. At present about 85% of all blind children of school age receiving special education, are attending residential schools for

the blind, most of which are state supported. At these schools the blind child follows grade by grade about the same courses of study which are followed in the public schools with some or all of the changes in methods previously outlined. There are some organizational features which, in the light of our present day knowledge and philosophy, should be a part of a good residential school. Integration of the blind individual into society as a fully responsible and contributing citizen is the desired result of schooling. Separation in residential schools is to be considered as a means of achieving this end which must continuously be kept in mind during each child's growth. Cooperation between the residential school and the parental home, the natural place for the child, is therefore essential. Whenever a child lives close enough to remain with his family he should be admitted as a day pupil. Home visits for weekends and for as many holidays as possible should be encouraged for these children who live in residence.

Life at the residential school itself should give blind children as many of the regular experiences of their age groups as possible. Segregation of every kind, between seeing and blind children, between boys and girls, should therefore be kept at a minimum and all means of integrating the blind pupils individually and in groups with community activities should be promoted and strengthened. As an example, competition in such sports as wrestling and swimming is of far greater value if it brings seeing and blind pupils and teams together. It may not be possible to arrange, for instance, scout activities in a completely integrated way by having the blind pupils individually become members of seeing scout troops, since their concentration in numbers makes this impractical. But their activities should be in close connection with the community program and with the participation of seeing scout leaders of the community. Church and Sunday school attendance offers other valuable opportunities for community participation.

An increasing number of residential schools have either all or some of their high school students attend regular local high schools where they work and compete with their seeing peers. They are still assisted by the school which provides tutoring and reader-service in order to make this first true experience of integration a successful one.

Other programs for the education of blind children have designed flexible arrangements intended to promote integration of the blind pupils into regular public school work either from the beginning of the

child's schooling or later on at a time when he appears to be ready for it.

PUBLIC SCHOOL PROGRAMS. Since 1900, some city school systems provide special classes for blind children as a part of their public school facilities. The overwhelming majority of these classes are conducted following the cooperative plan. In a homeroom a specially trained teacher assists the blind children in all those subjects in which they need help in order to keep up with the work in the regular classrooms. They participate in the regular grade instruction as much as possible and return to the homeroom for tutoring and reading when necessary. Braille reading and writing must, of course, be taught by the homeroom teacher.

Although some of the special-method features which can be applied in residential schools cannot be practiced under this arrangement, the opportunity to remain at home and work together with seeing youngsters in an undifferentiated school situation has many advocates. Supplementary provisions appear to be necessary in the following areas: physical education, music education, and handicrafts. In some of these the homeroom teacher can give the necessary supplementation, in others special teachers must be called upon.

The question of which facility is better, the residential school or the class for blind children in a public school, cannot be answered abstractly. It must be considered for each child individually with all its personal ramifications.

The program for the education of blind children must also include services for children before they enter school and after they leave school. It is generally accepted that the most desirable form of providing for blind preschool children is through the services of a home visiting or counseling program. It is the purpose of this program to help the parents to develop a better understanding of their own problem in accepting the blind child; to give them information and advice on the training of the child; and to guide them toward utilization of the community resources best suited to the individual child's needs, such as special nursery classes for blind children or regular nursery schools. Parent group meetings and institutes for parents and child may supplement this program.

Blind graduates from high schools are assisted in their college studies by compensation for readers in most states, since college text books are not available in braille. Application of new recording devices

has demonstrated their usefulness in connection with high school and college texts. The Office of Vocational Rehabilitation provides a state-federal financed program which recognizes the need for specific provisions for the blind. Under it blind persons 16 years of age or older may receive vocational guidance and training and assistance in placement. Most schools and classes for the blind cooperate in one way or another with the Vocational Rehabilitation Services.

The trend in America is toward a loosening of the institutional-residential element in the education of the blind. Segregation of the blind is normally acceptable only as a step toward integration with the seeing community. The blind want to live as independent individuals who are conscious and desirous of fulfilling their economic and social obligations to the community, but do not hesitate to be bold if ignorance or prejudice denies them their full rights as citizens. TenBroek asks for a "Bill of Rights for the Blind, not declaring our independence from society but our need of being integrated into it; not guaranteeing special favors and position, but equality of treatment; not glossing over our weaknesses or limitations, but recognizing us for what we are, normal human beings, or at least as normal as human beings are; a Bill of Rights according us a fair chance to live socially useful lives." Special education of the blind must work toward this end.

34. The Blind Child in the Regular Classroom *

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Many educators believe that the blind child can be served best in his own community. Some communities are too small to support a Braille class; others question the wisdom of a totally segregated group. As a result, there has been an increasing tendency to care for the blind child in the regular classroom. The following article

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discusses various methods that may help teachers solve the special problems created by such an arrangement.

Five-year-old Jimmy jumped out of the car, said good-bye to his mother and started to run in the direction of the school. He tripped on the first step but did not fall because he was holding my hand, trying to drag me along as I stopped for a moment to talk with his mother.

This was Jimmy's first day at school, and he was entering it with all the enthusiasm and anticipation of childhood. I made my conversation short and went along with him. He found the door, opened it and, half-walking, half-running, still holding my hand, made his way to the kindergarten door which was the first on the right. Jimmy knew where it was. He had already been there one day to see the room, after the children had been dismissed. Today the door was open and the youngsters were nearly all there. They were sitting on a bench taking turns at showing the other children things they had brought from home. Miss Jones, the teacher, greeted Jimmy as he stood in the doorway. He hesitated for a moment, then dropped my hand and went with her to join the other youngsters on the bright window seat.

As soon as the "show and tell" was over, Miss Jones suggested that the children find the toys they wanted for the play period. Jimmy knew immediately that he wanted the cars, because he had found them last week but had not had time to play with them. He had known for a whole week that as soon as he got to school, he would start by playing with those cars. He made his way across the room bumping into a table en route, and found the cars. He knew that they were to the left of the door as you came in. He put them on the floor and began to play. Little Michael, who had been asked to be Jimmy's friend for the day (this is done whenever a child comes to school for the first time), got a truck and began to push it beside Jimmy. Both youngsters played alone—Jimmy, because he did not know who was beside him, and Michael, because he did not know quite what to say to Jimmy. Jimmy was blind and Michael knew this, but was not sure how he could be of most help. Seconds later Jimmy found the blocks and busied himself piling them in the truck while Michael, still feeling some responsibility for his new friend, began making a block wall near by. I said, "Jimmy, Michael is beside you and he is making a wall with the blocks." Immediately Jimmy replied, "Come on, Michael, and play with my blocks, too."

The ice was broken and a smile spread over Michael's face as he moved closer to his new friend to help him put blocks in the truck.

I watched the youngsters go about their different activities. Soon Miss Jones showed them how to play a skipping game. Jimmy joined in, skipping around and around the tables, occasionally bumping into the edge of one. At snack time Jimmy got his own milk with a minimum of assistance. Although he needed help on this first day, because he was unfamiliar with these new surroundings, it would not be easy to distinguish him from the other children. He does the same things—runs, jumps, hops and plays. He likes the occasional wrestling match, too. At the end of the morning he goes happily home to recount his experiences to his mother.

This first adventure in public school with other children of his age, but with adequate provision for individual differences, is an important accomplishment in the life of this little boy. Jimmy's limitations happens to be more obvious and more limiting than those of some of the other youngsters. But, except for the fact that he is blind, there is little real difference between him and any other five-year-old. He has the same interests, desires and feelings.

This is only the first milestone in Jimmy's life. At times the going will be hard and the trail rough. There will be many bumps and falls along the way, but with the help, security and understanding given him by his family and his teachers, Jimmy will be able to withstand the knocks and will achieve his aim, that of being a whole person, accepted, loved and wanted as he is, with his limitations and his potential.

Today an increasing number of administrators and teachers are accepting the challenge of educating a blind child in the regular classroom along with the sighted group. When confronted with the question, "Will you accept a blind child in your school?" many school officials express the belief that their educational program is not geared to handle this type of exceptional youngster. However, after some consideration many administrators have agreed, not without misgivings, to accept a visually handicapped child on a trial basis. In working with this type of exceptional child, principals and teachers are discovering that his similarities to the average are much greater than his differences; and that educational methods do not need to be changed, but can be adapted to meet his individual needs.

A child is considered "educationally blind" when his vision is so

limited that he has to receive the major part of his education through senses other than sight. This includes children with no vision, those with ability to see light and dark, and those able to distinguish large objects at close range, but unable to read any kind of regular or large size printed material.

The child who is visually handicapped will, by reason of his limitation, have developed his other senses to their maximum. At an early age he will recognize persons by their voices or their footsteps. He will be aware of all the sounds around him, and will use these as an aid to finding his way about. He will use his sense of touch constantly to identify objects and to find places and things about him. The senses of smell and taste will prove useful to him in many instances when a seeing person might substitute the sense of sight.

Administrators, in deciding whether or not a blind child could benefit from the regular educational programs, will need to consider the following questions:

1. Is the child reasonably well developed socially, emotionally, intellectually and physically, and thus able to take the competition of the regular school?

2. Is this the type of program the parents really want for their youngster? Are they willing to help both the child and the school to provide the best kind of experiences for him and for the group?

3. Can the cooperation of an agency for the blind be secured to aid in providing a resource person to work with the child and the school, and to provide the necessary materials which will enable him to function adequately in the regular group?

4. Is the school, which is considering placement for the blind child, willing to accept this challenge, at least on an experimental basis?

If these questions can be answered in a reasonably positive way, steps may then be taken toward actual placement of the youngster in a group.

If a blind child is to attend the public school in his neighborhood it is assumed that he will start in the kindergarten at the age of five or six. It is advisable to place him in a group which is slightly younger than he is, chronologically, since in some respects this may give him an advantage, thus making the competition easier for him. The teacher who will have this youngster should have consented to his placement in her group, and should be willing to help him just as she will help all the

other children. Initially she may have many reservations—Can she assist this child adequately? Will he be more likely to get hurt? Will the other youngsters accept him? These are normal questions which can be worked out if the teacher's basic attitude is one of acceptance and desire to meet the challenge which this new situation offers.

The basic methods of helping the exceptional youngster become a part of the group will be similar to those used with all children. He needs to be given a feeling of security and acceptance. He needs to be helped to participate in and enjoy new experiences, but at the same time to be free to grow and develop in his own best way thus making his unique contribution to the group, to the school, and later to the community and to society. To achieve this goal the teacher must: (a) help the blind child become acquainted with his physical surroundings; (b) develop with the other youngsters some techniques for clarifying situations for him; (c) help him participate in group experiences in ways which are satisfying to him.

Before the first day of school the handicapped youngster should visit his new classroom at a time when the other children are not present. This will give him an opportunity to learn the physical layout of the room and to find where some of the equipment is located. The teacher should show him the room and the toys by starting at the door and following along the wall, encouraging him to identify things as he goes along. He will be able to recognize most of the equipment as soon as he touches it, but there will be some items which may be unfamiliar to him, such as the easel, bulletin board or drinking fountain. He should have an opportunity to look these over fairly carefully so that he will recognize them the next time he sees them. After he has seen all the objects along the walls, he will want to explore the rest of the room by himself, finding the tables, chairs and other equipment. He knows that the blocks, tables, chairs and various toys will not necessarily be in the same place each day, but they will not be a hazard to him since he learned at an early age to exercise some caution. It would be helpful to the youngster to have a place for his coat and other belongings at the end of the row or one from the end, so he can locate them easily. On this first visit he should be shown the outdoor play space and given an opportunity to locate some stationary objects which he can use as landmarks for orienting himself the next time he comes.

During his first few days at school, the blind child will need some help in finding materials and toys. The teacher can give this by telling him their exact location in relation to objects with which he is familiar. For example, the teacher might say, "The train is at the left of the drinking fountain." If she happens to be close to the desired toy, she might say, "The train is over here." This would enable the youngster to walk directly to it.

The group and the teacher will have to help the handicapped child locate the position of block structures or other projects which might be damaged by his running into them. A pupil might say, as he sees the blind child approaching a structure, "Jimmy, we are building a block house here." This will be all that is needed, since, if Jimmy understands what is going on, he will be careful not to damage it.

In any kindergarten room there are toys, blocks and other materials on the floor. At first glance these may seem hazardous for the sightless child. He will learn quickly to expect them there and will use some caution in getting about. However, he will bump into them or trip over them just as the other children do, but it is not likely that he will get more than his share of bruised elbows and skinned knees.

Young children are fairly quick to accept new situations and the presence of a blind child in the group will probably not be disturbing to them. If the teacher deals with the handicap in a matter-of-fact, accepting way, the youngsters will do the same. They will, however, need to have some understanding of the situation. Whether or not the teacher tells the group that the child is blind before he enters will depend on the age and maturity of the youngsters in the group. If the children seem fairly mature it is probably advisable to tell them that the new little boy who is coming does not see with his eyes, but that he sees in many other ways. The teacher might then point out that he sees with his hands by touching things, with his ears by listening for different sounds, and so on. If the children ask questions, these should be answered honestly in simple language. If the youngsters have not been told that the new little boy is blind, before he arrives, they can be told when he arrives or when someone asks a question about his difference. (If the youngster is in first grade or above, his blindness should be discussed with the class before he comes to school.) In answering questions relating to this handicap, the teacher should emphasize the positive, describing the

things he can do rather than those he cannot. The youngster himself will often be able to answer these questions, since his parents will probably have given him some techniques for dealing with this subject.

When children understand the youngster's limitation (at their own level), they will be able to help him to be a participating member of the group. Most of the time this will not involve any extra effort on their part, but there will be occasions when they can help to clarify situations for him. The teacher can give them a few techniques for doing this and they can find other means of their own. For example, the teacher should explain to them that there will be times when they need to tell the blind child what they are doing if they want him to know. "I am building a boat with the blocks." "We are making a toy farm here." If they want to show him a toy or interesting object they have brought from home, they must put it in his hand. If they approach him, they need to speak in order for him to know who they are. If they are playing a circle game and he gets out of the circle, a child who is near him might take his hand and bring him back. If they are running in a straight line or to a designated spot, it would be helpful if some child would take his hand and run with him, or go to the desired spot and say, "Run over here."

Care must be taken by the teacher to see that the youngsters do not give too much help to their handicapped friend. He is capable of doing most things for himself, and like all persons he wants to maintain his independence. If he receives an undue amount of attention, he might become dependent, thus accepting assistance which he really does not require. This over-dependence would probably prevent him from making his best contribution to the group, and would prevent the group from benefiting from his membership in it. The teacher must also watch to see that the same child does not always help the limited youngster. One pupil may, for reasons of his own, attach himself to the exceptional child. This could prevent both youngsters from becoming contributing group members.

Although the blind child must be allowed to maintain his independence by receiving a minimum of assistance, there will be many instances when a word or act will make an experience more meaningful for him. He should be given plenty of opportunity to utilize his other senses. The whole group can benefit from this, and thus many experiences can be made more meaningful for all the children. If a group of children is participating in a visual activity such as watching the teacher

unwrapping a package and holding up the contents, a brief description of these actions and of the article being displayed will enable the visually limited youngster to enjoy what otherwise would be a meaningless activity. If some children are setting up an aquarium or terrarium, it would be helpful to let the blind child handle the grass, plants, shells, stones and various other objects before these are put into the tank. When the group goes on a trip, all of the youngsters should be encouraged to use all their senses. They will look, of course; they will touch when they can; but they may need to be helped to listen for identifying sounds and to smell different odors. When the children are looking, the teacher may describe what they see.

There will be times when activities are going on which seem to have little meaning for a blind child. However, in some instances adaptations can be made so that the experience will have value for him. One six-year-old learned to operate the slide projector and she showed the slides to the other children. A five-year-old turned the pages of a large picture book while the teacher described the pictures. Sometimes there will be work going on in which the blind child really cannot participate. In this case he will have to be helped to find another type of occupation. The teacher should not be disturbed by this, as throughout his life there will be occasions when a handicapped person is unable to participate in the same way as his peers. If he can be helped to accept this fact gradually, in situations in which he feels secure and knows he is wanted, his real limitation will never come as a shock to him at some later time. On the more positive side, there will be activities in which he can really excel; and he should be given a chance to have this satisfaction, too. In a game of "Blind Man's Buff" or some other game where the object is to identify children by their voices, he will do well, because this is one of the things at which he has had so much practice. By playing these games the rest of the children get some idea of his actual limitation. These activities should be carried out in the same way as they would be in any kindergarten or primary class. No verbal conclusions should be drawn by the teacher. The youngsters may notice their companion's adeptness and may comment on it, but this is as far as it should go.

By enrolling a blind child in a regular public school, educators are helping both the child and the group to become more understanding and more accepting of individual differences. Each child participating

in such an experience will be more likely to have greater respect for the limitations and potentials of others, and the blind child, in turn, will be helped to take his place in a seeing world.

35. Education of Partially Seeing Children *

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Hazel C. McIntire describes four patterns currently used in educating partially seeing children and evaluates each in relation not only to educational philosophy, psychology, and method but also to principles of child growth, development, and guidance.

Placement in Schools for the Blind

Until the establishment of special myope schools in England in 1908 some partially seeing children in all countries, including the United States, were educated in schools for the blind. However, as early as 1802, it was recognized that partially seeing children should not be educated with blind children.

First, because partially seeing children are sighted and therefore receive most of their environmental impressions through the sense of sight. Since this is so, most of the methods and materials used in educating them utilize visual stimuli. Blind children, on the other hand, use the sense of touch instead of vision and therefore require entirely different educational tools and techniques.

Second, since all available statistics indicate that the majority of partially seeing children will never be totally blind, it is psychologically and pedagogically unsound to expose them constantly to blindness and to methods and environments used in teaching the blind. Also, following their years of formal education, partially seeing individuals are ex-

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pected to live with their normally seeing companions, with whom they have to compete for a livelihood.

Third, for the large majority of partially seeing children, enrollment in a school for the blind means institutionalization. Most authorities in the fields of social work, education, and child psychology feel that children develop to optimum advantage physically, mentally, emotionally, and socially, only when they are reared in their own homes and communities.

Fourth, those who advocate education of partially seeing children in schools for the blind ignore the fact that the original reason for the establishment of residential schools was to educate the blind with their peers. When partially seeing children are brought into these schools, the blind take a position inferior to that of the partially seeing, so that the latter either are given a false feeling of superiority or are assigned such tasks as cleaning, bedmaking, or threading needles.

Fifth, when partially seeing children are removed from their own communities, local school boards and superintendents are relieved of the financial and educational responsibilities attendant upon establishing facilities for the handicapped. Although the immediate problem has apparently been met, the solution of the long-range problem is postponed further; for there will be other partially seeing children from these localities demanding attention in the future. One of the recommendations of the recent Mid-century White House Conference on Children and Youth reads, "That local boards of education accept full responsibility for planning and providing adequate educational programs and services, including special services, to meet the needs of children with physical and mental limitations and that state departments of education accept responsibility for leadership service in realizing this objective."

In view of the disadvantages outlined above it is disturbing to note that the number of organized classes for partially seeing children in schools for the blind has increased sharply during the past few years. In 1936, only four state schools had such classes; in 1950, eighteen schools reported a total of more than thirty classes. Although the trend continues upward, all the evidence justifies considering this a retrogressive trend, one which must be reversed if the partially seeing children involved are to receive a total educational opportunity equivalent to that of their normally seeing companions.

Placement in Special Schools

The plan of placing partially seeing children in special schools is somewhat better than that of placing them in schools for the blind in that the partially seeing are not constantly identified with blindness and hence do not suffer from the adverse psychological and social effects resulting from this close association. Then, too, there is a much greater possibility that partially seeing children will be kept in their own communities or within easy commuting distance.

However, in special schools, partially seeing children are usually members of a segregated group, "the sight conservation class," and they engage in cooperative activities only with children who are "abnormal" in some respect—the hard of hearing, deaf, epileptic, cardiac, or palsied. Besides, partially seeing children do not need the whirlpool baths, pools, occupational therapy, physical therapy, and the other expensive equipment and facilities provided in these special buildings and really designed to benefit other groups of exceptional children.

The widespread interest in all areas of special education throughout the country has caused an increase in construction of special schools and centers. In so far as these centers include classes for partially seeing children, this trend, too, must be looked upon as undesirable. Since many of these special schools are located on college campuses and serve as major teacher training centers, prospective teachers are exposed constantly to less than the most desirable methods. This tends to perpetuate an educational pattern for the partially seeing which has never been accepted by authorities in America.

Placement in Segregated Classes in the Public Schools

The first class for partially seeing children in the United States was set up as a segregated class. Its chief advantage over the plan of placing the child in a special school is that it allows the partially seeing child to have some, albeit casual, contacts with normally seeing children who are housed in the same building. Also, with this type of arrangement more partially seeing children can be served in their own communities. However, the ill effects of segregation and its consequent stigmatization are very real, not only to the children enrolled but also to their parents and to the professional personnel serving the children. Ophthalmologists,

psychologists, social workers, and orthoptists are increasingly vocal in expressing their dissatisfaction with all segregated educational programs.

Cooperative Placement Plans

In the fall of 1913, Dr. Robert B. Irwin, who was then in charge of the special classes for blind children in the city of Cleveland, Ohio, initiated the cooperative system for educating partially seeing children. There are two types of cooperative placement, depending upon the homeroom situation of the child. In one type, the most prevalent up to now, the child is enrolled in a special "sight-saving" class which serves as his base of operations. He leaves this class several periods each day to join his normally seeing classmates in all activities not requiring continued use of the eyes. All close eye work is done in the special classroom under the direction of a specially prepared teacher.

More recently, communities in several states have enrolled partially seeing children with the normally seeing in regular classrooms. The partially seeing children remain in their homeroom for all school activities, curricular and extracurricular, excepting those requiring concentrated eye work, for which they use the specially equipped classroom. This plan accentuates the positive attributes of the child and minimizes his handicap; and, in effect, the specially prepared teacher has the same responsibilities and professional duties as in the preceding plan. As a matter of fact since, in so many of the modern schools, all classrooms actually embody sight-saving principles, the visually handicapped child has less need than formerly to resort to the special environment offered by the special classroom.

Analysis of enrollment data from all parts of the country indicates that the total number of children in established classes is dwindling steadily. Opinion studies seem to show that this is due in no small measure to parental and professional resistance to the psychological and social disadvantages resulting from even limited segregation and stigmatization.

36. The Adjustment of the Partially Seeing Child in the Regular Classroom *

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The teacher, school nurse, counselor, psychologist, and other school personnel must coordinate their efforts to help partially seeing children adjust and achieve in the regular classroom. This article discusses the role of each and, in addition, considers special provisions and curricular adaptations for the education of these children.

The extent to which a partially seeing child can adjust and achieve satisfactorily in a regular class is an individual matter and dependent upon several factors. They include, among others, his visual acuity, his interests and capacities, his abilities, the degree to which he is able to orient himself to many class activities, the size of the class in which he is placed and the amount of attention the teacher can give him as one of several steps designed to help compensate for the handicap of poor vision.

Partially seeing children are very much like other children in that they have the same strong desire to take an active part in the family and social environment in which they find themselves. The same applies to class situations. They want recognition and status as members of their class groups. They must have opportunities to acquire outlets for those activities which enable them to live full and wholesome daily lives. We must recognize that along with the usual problems faced by all children, there is imposed upon these children the additional handicap of poor vision. This combination may intensify and aggravate the social, emo-

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tional and educational problems they will encounter in their daily experiences as they progress through school.

Role of the Regular Class Teacher

The role of the regular class teacher is especially important. The task of working with a partially seeing child presents a challenge to her in that her attitude toward the child, coupled with an understanding of the effect the visual defect has on the child's capacity to learn and adjust, will determine the ease with which the teacher can help to create more meaningful learning experiences. The resourceful teacher must be alert to every opportunity to bring about active participation on the part of the child in those particular aspects of a learning situation which will best promote his growth and development.

The teacher should understand that she can be most effective in her efforts to satisfy the needs of the partially seeing child if she fully utilizes the assistance available through a team approach whereby the parents, the school nurse-teacher, the school psychologist, the school counselor, the supervisor, the principal and other teachers are called upon whenever their skills and knowledge can contribute to the child's total growth and development. Working together, all can help the child develop independence, self-reliance and competency.

Role of the School Nurse-Teacher

Providing a two-way liaison service between the home and the school, the work of the school nurse-teacher centers around four major needs in eye health:

1. Urging parents to secure early diagnosis and treatment of eye conditions
2. Acquainting the home and school with proper preventive measures to avoid injury and infection of the eye
3. Explaining how conditions under which eyes are used may be improved
4. Pointing out to parents the need for continuing medical followup as long as indicated

The school nurse-teacher should provide classroom teachers with an accurate interpretation of the eye report, explaining both the diagnosis

and prognosis of the eye condition, the visual acuity for each eye both before and after correction, and any special precautions to be taken when assigning activities to the child. Recommendations made by the eye specialist in reference to glasses and physical restrictions should also be noted and discussed with the child's teachers.

Role of the School Counselor

In the interests of the partially sighted pupil the counselor should work in close cooperation with the school nurse-teacher and other school health services personnel who have the responsibility for screening and interpreting vision defects and working with parents concerning such matters. He must also recognize the implications of such defects as he assists these pupils in making realistic and satisfying adjustments and plans and as he cooperates with teachers, parents, admissions officers, agency personnel and employers to the end that they have a better understanding of the total potentialities and limitations of the partially sighted pupil.

Role of the School Psychologist

Whenever the services of the school psychologist are needed for any partially sighted child, it is of particular importance that the psychologist have a good understanding of the condition of vision impairment of the child. This is true whether a situation simply involves some individual testing for appraisal of proper relationship between ability and achievement, or whether it involves a wide range of other matters, such as specific learning disabilities, possibly related to the visual handicap; problems of personal or social maladjustment which may occur among these children even as they do among children without such handicaps; or any special problems of minor or major degree of importance which may be more directly related to the visual impairment. The psychologist's case study findings should take into account the effect the visual impairment may have on the total adjustment of the child. Conversely, such studies can help give insights and understandings which will further assist in the total program of help to the child, both with regard to educational planning and counseling with the child and with the parent.

Assistance from Supervisory and Administrative Personnel

Supervisory staff and principal can be of assistance by making available equipment and materials used as supplementary tools by the child with limited vision. The supervisor can be most effective by coordinating the activities and contributions of each member of the team. When recommended by the eye examiner, the principal can arrange with the superintendent of schools to provide special educational services such as the employment of readers, the employment of an approved teacher to give supplementary instructional services if needed, and transportation to and from school.

Contribution from Other Teachers

Pertinent comments of other teachers concerning the child's development as well as records of past achievement should be noted in the cumulative record and made available to the child's teacher.

The teacher of a class for partially seeing children is a good source of assistance, and she may be consulted concerning problems dealing with the use of special materials, equipment and methods of teaching.

Classroom Setting

The physical setting of the classroom should be such that it enables both teacher and child to work comfortably and efficiently. The following suggestions are useful in providing a desirable environment not only for the child with poor vision but for all the children in the class:

1. Arrange seating and classroom situation generally so that the child does not suffer fatigue by having to face the light.
 - a. Teacher should not stand against radiators and window sills while talking to the class so that the child faces the light directly.
 - b. Do not make use of the space between and under windows, as the child will then be forced to face the light in his attempts to observe what has been placed in these areas.
 - c. Allow the child to sit where he has what is for him the best light so that charts, demonstrations, bulletin boards and chalkboard work are readily visible and free from glare.

Some eye conditions are such that children will work best in situations where the level of illumination is not too high. Health service personnel should point out such instances to classroom teachers.

2. Eliminate glare.
 - a. Avoid having highly polished surfaces on desks and other working areas, as they create glare and discomfort.
 - b. Glass-covered pictures, decorations and similar objects on walls produce glare.
 - c. Eliminate clutter and crowding of walls as this tends to confuse and cause fatigue. Select pictures that are clear and colorful, and avoid those with too much detail.
3. Seats should provide maximum comfort so that the child's position in the seat is such that all materials used are at a comfortable eye level.
 - a. A seat or desk that is too high or too low, too narrow, or too broad, can cause much general physical discomfort as well as eye discomfort. Corrective steps may be taken by:
 - (1) Use of movable, adjustable, dull-surfaced, tilt-top desk.
 - (2) Providing a reading rack or adjustable easel, properly placed so that material may be brought up to eye level.
4. Lighting
 - a. Make the most of the room's illumination by adjusting shades for maximum comfort. Use artificial illumination to supplement natural light when necessary (minimum of 40 foot-candles desirable).
 - b. Light entering the room should fall so that shadows do not envelop working areas.
 - c. Usually light coming over the left shoulder is best for right-handed children; over the right shoulder for those children who are left-handed.
 - d. Avoid creating a shadow on workspace by bending over a child while working with him.
 - e. Avoid the use of curtains, the placing of plants or other objects which cut down the amount of light coming through the windows.

General Provisions for the Child

1. It is of utmost importance to obtain the recommendations of an eye specialist and to follow them. The school nurse-teacher can assist the school staff in working out the best possible adjustment based upon these recommendations.
2. Glasses should be kept clean and properly adjusted and worn constantly, if recommended.
3. Eye-rest period should be provided by varying activities.
 - a. Stress oral approach whenever possible. Oral drills may be alternated with writing and reading activities so that all children in the class can profit from the eye-rest periods.
 - b. Alternate board work with seat work.
 - c. Avoid excessive and unnecessary reading.
 - d. Provide creative or freehand art work between activities that require intensive eye work.
 - e. Encourage children to rest their eyes frequently by closing them or by looking away from their work to some distant object or scene.
4. Writing that is large and clear should be emphasized.
 - a. Board work should be in large, clear writing that is not crowded. Place all board work on the cleanest, best lighted, glare-free portions of the board.
 - b. Provide child with large, soft, white chalk which makes a broad, heavy, even line for board work.
 - c. Allow the child to write larger than average, and if manuscript writing is easier for him, encourage him to use it. Writing periods for the child should be brief.
 - d. Pencils with soft, very black lead, making a broad clear line, are easier to use and the writing easier to read.
 - e. Pens making a broad, heavy line are desirable. India ink is preferable to ordinary school ink.
5. Children with limited vision should be trained to be "ear-minded" rather than "eye-minded." Where possible, substitute manual and auditory experiences for visual tasks.
6. The services of a reader should be employed if such service is recommended and will contribute to a higher level of achievement and adjustment.

7. Supplementary subject matter material in large-type books which may be read with less fatigue than books with ordinary print should be provided when recommended.
8. Psychological testing
 - a. Partially seeing children frequently are tested by the same psychological tests given to other children. In other instances, they are not tested at all, presumably because it is believed that the results obtained are not valid. Nevertheless, consideration should be given to include these children in the school's testing program in order to have more complete data for individual diagnosis.

If these children are tested by using the same procedures used with other children then it may be expected that in some instances the results obtained will not be accurate. In those parts of tests where lack of vision impairs the child's ability to respond as promptly and accurately as others, then it is understandable that the vision defect may have a depressing effect on the test score. On the other hand, it is possible to test these children by using tests that have been adapted for use with children having defective vision. A few tests are being used with little or no adaptation. In the mental testing area, for example, there are two such tests: the Interim Hayes-Binet Test, an adaptation of the Terman-Merrill revision of the Stanford-Binet Intelligence Test, and the Wechsler Intelligence Scale for Children.

Curricular Adaptations

Partially seeing children can usually participate in most class activities. Adaptations may be necessary for some children but in general their visual handicap should not be a bar to their participation. It must be recognized, however, that most of these children will need some individual instruction, especially in such subjects as reading, writing and arithmetic. Certain school subjects such as mechanical drawing and shorthand are closed to the child with extremely poor vision. It is recommended that the eye specialist and school health service be consulted when planning the student's course schedule.

Since comparatively few large-type books are being published, the

texts being used by the class may not be available in large type. Therefore, it will be necessary to have some daily lessons and related materials transcribed into large type or into manuscript writing. A typewriter with large type (18- or 24-point) is especially valuable, and rapid transcription of materials can be done by a member of the school's stenographic staff. When material is reproduced in manuscript, pencils with large, soft, very black lead should be used, and the material set up on dull, unglazed paper without lines.

In view of the scarcity of large-type books the use of magnifiers and other types of optical aids may enable the child with seriously defective vision to use materials in ordinary type. A number of magnifiers are available which make it possible for some children to use the same materials used by their classmates and thus eliminate the need for substitute materials in large type. The use of such magnification devices, however, should have the approval of the eye physician. Heretofore concern has always been expressed about maintaining the usual focal distance of 14 to 16 inches while reading. Today, however, greater concern is expressed for making the most of whatever remaining vision a person has. One can no longer justify insistence on maintaining the usual focal length for a child having seriously defective vision if with a shorter focal distance he can use his remaining vision more efficiently. It is recognized that problems will arise having to do with good posture, yet compromise is necessary if the child is to be able to function as a seeing child.

Certainly the possibilities of using these optical devices should not be overlooked by school health service personnel in exploring means of obtaining maximum refraction benefits for children having low vision.

ARITHMETIC. It is advisable in a subject like arithmetic to encourage the use of mental computation to avoid unnecessary writing and copying. The pupil should be required to write down only the important steps in the problem-solving sequence in order to avoid fatigue.

The use of a variety of objects is especially helpful. Thus the child is able to combine the use of his residual vision with his tactile sense resulting in the acquisition of broader arithmetical concepts.

Partially seeing children in the lower grades can do much of their arithmetic directly on the chalkboard thereby doing away with some of the copy work and the use of small paper and pencil-figures.

READING. Reading materials for all children should be carefully

selected and preference given to books with large clear type and pictures; adequate spacing between lines, words and letters; suitable margins; good quality paper without glossy finish; and maximum contrast between background and printing. Thus, fundamental reading skills and maintenance of maximum visual efficiency in partially seeing children is more readily developed.

In first and second grades, books which are being used by other children may be satisfactory as many books on these levels are printed in fairly large type.

In other grades it may be necessary to reproduce some of the reading material in large type. By using the State Traveling Libraries' supply of large-type books in addition to texts available from commercial publishing houses, an adequate adjustment to a reading program can be made by these children. In order to supplement the material in large type, the use of suitable audio aids should be investigated.

ART. Free creative art in large form provides an excellent opportunity for self-expression. The use of charcoal, pastels, poster paint etc. is recommended. Stress large bold strokes when using crayon, chalk and paint. Finger painting and work with clay are particularly suited to the needs of children having limited vision. No fine, intricate work should be undertaken nor should copy work and drawing with an ordinary pencil be permitted.

MUSIC. Music provides both satisfaction and release from tension for the visually handicapped child. It may be necessary to enlarge musical notes to a point where he can read them. The availability of musical recordings is sufficiently broad that a child can learn a variety of songs from this source and sing them in company with the other children during the music period. The recordings also provide an excellent opportunity for music appreciation.

The opportunity to study instrumental music should not be denied these children. The approach to learning to play an instrument may require a great deal of memorizing on the part of the child, but it has led to a high degree of skill by many having both the interest and capacity to play a specific instrument.

PHYSICAL EDUCATION. Some eye conditions may necessitate physical restrictions. Therefore, the school health service and the child's eye physician should be consulted prior to the child's participation in physical education activities. It is important, however, that in no instance

should restrictions be placed upon a child simply because of a vision defect. Only a few eye conditions may necessitate certain limitations in a number of physical activities.

Whenever games are played as a group activity the child with limited vision should be assigned a part or role which he can successfully carry out. If at all possible, no situation should be allowed to arise where he is compelled to be a bystander.

The child must have an opportunity to participate in some capacity in most class activities if he is to acquire feelings of acceptance and status among the class group.

37. Color Blindness *

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This article suggests that color blindness has often been overlooked as a visual handicap by the classroom teacher, psychologist, and special educator. George A. Peters provides the reader with a general introduction to the interpretation of color perception tests and discusses the implications of color blindness for education and vocational guidance.

All too frequently, teachers believe that the term color blindness indicates either a complete lack of color vision or the inability to perceive such colors as red or green. Now the student who can see only black and white and gray is rare indeed. What is commonly called color blindness is a result of a diminished sensitivity to certain portions of the spectrum. For illustrative purposes, you might imagine that a mixture of 50 percent red and 50 percent yellow would appear to some color blind individuals as consisting of only 25 percent red and 75 percent

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yellow. That is, the color confusions and difficulties in color matching, mixing, and naming, which are so characteristic of the color blind, result from perceiving combinations of colors in proportions which are different from the way they are seen by the majority of individuals. Some time ago it was suggested that the term color weakness be used for the common types of anomalies in color sensitivity, but the term color blindness has persisted. This, despite the fact that these individuals actually can see all of the primary colors. Certainly, the use of the term color weakness would have less emotional impact upon a child than if he were bluntly labeled color blind.

There are many educators who feel that they can easily determine whether someone is color blind merely by asking them to name the color of a wall, some piece of office equipment, or an article of clothing. True, this may work with some of the color blind but it will misclassify some normal individuals who are merely "color ignorant" or just shy and hesitant. Thus, someone with normal color vision may be thought to be color blind while someone who actually is color blind may pass this informal test by relying upon perceptual cues habitually used to overcome this handicap. Even if a true color blind individual is detected by such an informal procedure, how could it be used to estimate the degree of color blindness or to determine the educational and vocational handicap it represents? Certainly, the modern educator would hardly attempt to get a valid and reliable estimate of intelligence by simply asking a few questions of a student in an informal setting. Rather, he would use a standard test, properly administered, which had standards or norms with which he could compare the student's performance. So too, modern tests of color vision should be employed to assess normal or defective color vision in students.

Testing for color blindness should be in the nature of a routine screening program. For every student should be screened for color blindness early in his school career. A notation concerning the students' ability to perceive colors should be placed on his individual records. Now this may sound too much like an ideal or overly ambitious project until the following facts are examined. With a modern test for color blindness, any classroom teacher may test and evaluate an entire class in less than a half hour (the average time required for each pupil is less than one minute). It is relatively inexpensive and may be used many thousands of times over a period of years, thus reducing its cost to but a

cent or two per student. Individual test record forms are not necessary although they may be used if desired. Specialized or trained personnel are not essential for administration and interpretation although, of course, any test instrument is improved by the use of professionally trained personnel. In other words, it takes so little time, effort, or money that a routine screening program for the detection of color blindness is a realistic and practical objective for every school.

Although there are several different kinds of tests which have been employed to detect color blindness, such as color matching, color naming, color sorting, the arrangement of objects according to color patterns. Only one kind of test meets the requirements of a reliable, low cost, simply administered, and easily interpreted test which is valid for the purposes intended and suitable for screening programs. This test is the pseudo-iso-chromatic plate test. A test of this sort merely requires the reading of various numbers or figures which appear among groups of colored dots. One test of this type is the Dvorine Pseudo Iso-Chromatic Plates (hereafter called the Dvorine color perception test). Because it has the most extensive published research data of the available tests, it will be used in this article to demonstrate how a typical test of this sort should be administered and interpreted. It should be emphasized, however, that there are several other good tests of this kind on the market today.

The Dvorine color perception test is administered simply by asking a student to "read the numbers," then turning each page until all 14 plates are read. If a student misreads or fails to see any number on only two of the 14 remaining plates, he is classified as having normal color vision (see Table 1). It is expected that even those with normal color vision may misread one or two plates and that is why all the 14 plates must be used. It is incorrect test procedure to select just a few "good" plates for testing since there are several kinds of color perception defects anyone of which may be able to pass the particular plates selected. For example, someone with a moderate degree of color blindness may read any seven plates while failing seven others. That is, different individuals with similar degrees of color blindness will fail different groups of plates.

The plates are designed so that they may be read without difficulty even by those with poor visual acuity. The presence of color blindness does not indicate any lack of clearness of seeing or of any other func-

tional visual defect. Only in rare cases of progressive organic disease of the eye is there any association between color blindness and such things as visual acuity. Indeed, color blindness should be thought of as a separate defect, not related to intelligence, personality, physical condition, scholastic potentiality, or diet.

TABLE 1

Degree of Color Blindness and the Handicap It Represents
(Based upon the Dvorine color perception test, Second Edition)

Error Score *	Degree of Color Blindness	Expected Percentages †	Educational and Vocational Handicap
0-2	Normal	89.5	No difficulty in color discrimination.
3-4	Borderline	3.0	Questionable handicap. Review the plates to see if any learning or perceptual set takes place. Regard as indeterminate if obtained under non-standard illumination.
5-11	Moderate	2.0	A slight, but significant, educational and vocational handicap resulting from deviant perception of colors.
12-14	Severe	5.5	A strong degree of color blindness which constitutes a very definite industrial, vocational, and educational handicap.

* The *error score* is the total number of incorrect responses to the 14 plates of the Dvorine color perception test. An incorrect response includes failure to see any number on a plate, misreading one or both digits on a plate, or responses given after prodding or assistance by the test administrator (no help or assistance should be necessary if normal color vision is present).

† What might be expected for males only in the general population. Color blindness among females is approximately one-tenth that found in males.

This table is based upon a similar table first presented by the author in an article entitled, "A Color-Blindness Test for Use in Vocational Guidance," *Personnel and Guidance Journal*, May 1956.

In the process of screening and detecting hundreds of color blind individuals, the author has been constantly amazed to find that the color blind adult is characteristically overly sensitive in regard to this one defect. Such things as lowered visual acuity, and general physical defects are usually accepted by the individual concerned without much ado. However, most color blind individuals greet a color perception test with much apprehension, quickly rationalize their failures, and frequently deny the validity of any such testing. Clearly, there is an emotional tone attached to the acceptance of such a defect. Upon further

discussion with many of these individuals, they frequently revealed that they felt that their color difficulty was something to be hidden, that they sometimes felt ashamed of having such a defect, and that they occasionally had some fear of ridicule when they were younger.

Perhaps such an unwholesome attitude toward this handicap has resulted from the attitudes and reactions of their parents, teachers, and peers. It might be argued that color blindness is first noticed during the early formative years of childhood. It is at a stage wherein there is a breaking away from the extreme dependency upon home and parents and the establishment of new interpersonal relationships in the world away from home. Thus, the teacher may become an all important parent substitute, ego-ideal, or object of identification. In such a situation, the revelation that the child "must be color blind" may be a source of tension and conflict for such remarks may be misconstrued as rejection or ridicule. Possibly, he may interpret his color perception difficulties as a defect which renders him less acceptable to his teacher. In this crucial period the child is trying to gain acceptance, on a basis of equality, with his playmates and schoolmates. If he is unable to perceive certain color combinations in quite the same way as the rest of his playmates or schoolmates, it may be a source of anxiety. Perhaps this type of logic emphasizes personality factors far too much. But it does indicate that the revelation and interpretation of such a defect should be done with great caution and in accordance with usual mental hygiene principles. It might be wise to replace the term, color blindness, with some other less ego-damaging phrase. While this might prove helpful in explaining the handicap to concerned parents, full and accurate information on the nature of color blindness and the educational and vocational handicap it represents must eventually be provided for student and parents. This should be done prior to any extensive planning for advanced technical training and before firm vocational decisions are made. For example, a color blind student should not plan on entering the Navy, becoming a pilot in the Air Force, or attempt to do interior decorating. True, some of the world's greatest painters were color blind, but the obstacles in such a field are very great for someone with such a handicap. Vocational counseling is certainly indicated if a color blind student plans to become a chemist, enter the field of electronics where electrical components are color coded, become a television repairman when there is a transition toward color television sets, or if he has inter-

ests in fashion design. Accurate and complete knowledge about his defect combined with appropriate vocational guidance is essential in selecting occupations if the color blind student is to avoid costly errors in his future plans.

So far as is known today, color blindness is a permanent thing. Attempts to train the color blind to improve their perception of colors or the use of special vitamins and drugs have met with very little success. Retesting a student, therefore, will not significantly improve his score. He may learn to memorize some of the responses although this can usually be detected by the examiner. In the classroom, the teacher should accept the color blind student as unique and should not attempt to isolate nor give excess attention to him. If he works with colors, he will have better success by confining his activities to the primary colors rather than get hopelessly entangled in tints, shades, mixtures, and other variations, which are beyond his capacity. He, of course, can become just as proficient in certain aspects of dealing with colors as the normal student. Thus, he can achieve successes and receive approval, recognition, and acceptance in place of the detrimental effects which might accrue if he were denied the opportunity to participate as a member of a group in certain classroom activities or if he were forced beyond his inherent abilities.

Color blindness is a handicap which is frequently overlooked in modern education. The neglect of this visual defect may have resulted from lack of knowledge as to what color blindness actually is, how to test for it, its importance to the growing child, or what can be done about it. This article provides sufficient basic information on color blindness to enable the educator to initiate a suitable program of action for the detection and improved education of those so handicapped.

Good standard color perception tests are now available for routine screening programs in the field of education. They are not only valid, reliable, and of low cost, but simple to administer and easy to interpret. For example, a classroom teacher may test 25 to 30 students in less than a half-hour. About two or three of those students may be found to have defective color vision. After estimating the degree of color blindness and the educational and vocational handicap it represents, the teacher may take steps to modify the work given to those students and help prevent or relieve some of the socialization difficulties which may accompany such a defect. Appropriate vocational guidance cannot be given without

consideration of the handicap and its significance in educational planning should be emphasized. In conclusion, the techniques for dealing with this handicap are known and the educator now has the opportunity to apply this knowledge to improve the education of those children so handicapped.

The Child with a Communication Handicap

A hearing loss or a speech defect can make communication difficult. Recognition, acceptance, and understanding are not easy to achieve when communication channels are impaired. An uncorrected speech defect can be a serious handicap to one's social or vocational adjustment, just as a hearing loss can encourage isolation and withdrawal. Because of the inherent relationship between speech and hearing, these two areas are considered together here.

Problems of speech and hearing are more numerous than is generally suspected. Estimates of the number of children handicapped by communication difficulties vary because the criteria used for classification vary. Some speech authorities would include even children with very mild conditions, while others would consider only those whose condition is so severe as to necessitate special services. In general the number of speech-handicapped children is estimated as between 2 and 5 per cent, while the number of school-aged children with hearing handicaps is stated as between 4 and 5 per cent.

Over a century ago state and private schools began to serve those with a severe hearing loss. More recently, public schools have recognized their responsibility to these children and during the past several decades educators have also turned their attention to those with less severe hearing handicaps as well as to those with problems of speech. Children with severe communication handicaps are often served by the speech therapist or the teacher trained to work with the deaf or partially hearing, but those with milder handicaps are generally the sole responsibility

of the classroom teacher. To be able to work with such children, teachers must have some understanding of the nature of the handicap and of the problems of adjustment these children may have to face.

Deaf children are generally educated in private or state residential schools, day schools, or special classes that are part of the local public school community system. The educational practices in almost all the aforementioned educational settings consists of the oral method, a process of communication utilizing speech and lip reading. Students desiring more specific information regarding the identification, treatment, and education of deaf children, should consult such materials as *Auditory Disorders in Children* by Helmer Myklebust.

The readings in this chapter discuss problems of children with severe communication handicaps as well as problems of children with minor impairments of speech and hearing. The introductory article, by Alice Streng, discusses various methods of educating children who are hard of hearing. Robert E. Roach explores the meaning of deafness for the very young child, and Grace Heider considers the problems of adjustment posed by deafness both as a sensory defect and as a communication handicap.

In terms of their effect on communication, problems of speech resemble defects of hearing. An overview of the development of speech is presented in the article by Spriestersbach and Buck. Elise Hahn discusses the role of the classroom teacher in helping the speech handicapped child, and Dorothy Mulgrave and John Lent consider the two most prevalent speech problems: articulation and stuttering. The chapter closes with an article by Frank R. Kleffner on an important group of language disorders, the aphasias.

38. The Child Who Is Hard of Hearing *

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With the development and use of more refined instruments to measure hearing, many children whose educational difficulties had previously been ascribed to other causes have been diagnosed as suffering a hearing handicap. The following article discusses what type of educational program should be provided for children who are hard of hearing.

Educational programs for children who are hard of hearing began to appear sporadically in the United States during the first decade of the present century. The invention of the audiometer in the 1920's and its acceptance as a useful tool for discovering children who had hearing impairments gave impetus to the organization of programs for hard of hearing children in the larger urban centers of our country during the 1930's. A further spur to the development of services for this type of child has come since the end of World War II with the refining of the modern individual electronic hearing aid. The combined efforts of science, medicine, and education have brought about a gradual awareness of the needs of hard of hearing children.

Hard of hearing children have been defined as "those in whom the sense of hearing, although defective, is functional with or without a hearing aid." Children with hearing losses of from 20 to 60 decibels as measured by puretone or speech audiometry are generally classified as being hard of hearing. As a group they have certain common characteristics. According to studies they are as intelligent as normally hearing children when tested on *non-language* tests, they are not re-

* Reprinted and edited from *Exceptional Children*, 19: 6-10, March 1953, with the permission of Alice Streng and the Council for Exceptional Children. A reprint of this article is available from the Council for Exceptional Children.

tarded in school when compared to children of similar intelligence; they present no great personality deviations.

Children who are hard of hearing seem to be very much like other children. Nevertheless, there are certain differences which become apparent when the factor of hearing itself is taken into consideration.

A child who suffers a hearing loss, though not completely shut off from sound, finds himself deprived of a very important sense. Since hearing is not a directional sense, sounds reach a person from all sides. They inform him of what is going on about him, they make continuous impacts on his brain even while he is asleep. A person with two normal ears can localize sounds. He can also sort them out, relegate to the background those which have no present meaning to him, and focus his attention on those which are immediately important.

When a child has a hearing loss he may have to seek out through increased motor activity information which comes more or less passively to one who hears normally. He will have to depend upon his eyesight in order to supplement the information his ears fail to bring to him. Though a hearing loss may not be the cause of a personality maladjustment it may add to the anxieties of an already fearful child. For instance, a child with normal hearing in bed for the night hears the tones of the TV and the occasional comments of his parents through his closed door and may be satisfied that he has company. On the other hand, a hard of hearing child may be considerably disturbed under similar circumstances. He may feel impelled to get out of bed and make repeated trips to the living room to assure himself that he is not alone.

Hearing is the most important of all the senses in learning speech and language. By the time he is three, an average child who hears normally is well on the way toward communicating his thoughts and ideas orally. There are certain minimum auditory essentials for learning to speak intelligibly. One good ear is almost as good as two for this purpose. But if the loss be great in the high frequencies (3000 cps. and above) in both ears, a child's speech is likely to be adversely affected. Though the hard of hearing child may hear vowels quite distinctly he may not hear such high frequency sounds as s, sh, ch, and other voiceless consonants such as t, k, and voiceless th. Because he cannot hear them, he may substitute one for another or even omit them from his speech.

There are also minimum auditory essentials for following a group

conversation. If a child has a loss of hearing at the 35 decibel level, it is possible that he may have difficulty about half the time in participating satisfactorily in a group conversation.¹ As auditory acuity diminishes, more and more difficulty arises in social situations. It therefore follows that a child who has a crucial impairment of 35 decibels or greater in the speech range, and who does not wear a hearing aid, may sit in a classroom quite at a loss to know what is going on during group discussions. It is also likely that a child whose loss is greater than 40 or 50 decibels will be deficient in verbal skills. This fact is borne out when verbal tests of intelligence are administered to hard of hearing children. On non-verbal tests they compare favorably with hearing children, but are at a disadvantage when verbal tests are used.

Despite these differences, hard of hearing children are enough like children who hear normally so that they should receive their education in the regular elementary school. However, the one big area in which they need special help is that of communication.

Children who are hard of hearing need help in learning to use their eyes to supplement their defective ears in receiving speech. Children who are hard of hearing, including those with mild losses, should be introduced to the art of lipreading (or speechreading). Those whose loss is severe may receive instruction in speechreading throughout their entire school lives, since greater dependence must be placed on sight as hearing diminishes. A factor, besides degree of loss, which may influence the amount of lipreading instruction made available to children is natural ability to read lips. Some children, regardless of age, intelligence, grade achievement or amount of training in speechreading are better lipreaders than others. It is important that all children who have hearing impairments develop the skill of reading lips to the best of their abilities.

Children who are hard of hearing need help in interpreting the world of sound. Given the opportunity to use amplified sound, children who have hearing impairments can learn to use their partial hearing to good advantage. Successful use of a hearing aid depends as much on psychological acceptance of the aid by the children and, incidentally, by their families as on their ability to manipulate and care for their

¹ H. Davis, ed., *Hearing and Deafness: A Guide for Laymen* (Rinehart Books, 1947).

aids. Becoming adjusted to the use of the aid requires special training and guidance.

Since hard of hearing children fail to hear many of the quiet sounds about them—the chirping of crickets, the singing of birds in the tree tops, the rustling of leaves—their lives can be considerably enriched through a program of auditory training which brings such sounds to their attention. But more important than this, especially for those with defective speech, is developing in them an auditory awareness of speech sounds.

Not all hard of hearing children will be expected to wear hearing aids. Those whose losses are so mild as not to interfere with social participation need not wear aids. Those who have certain types of hearing patterns such as ability to hear normally in the low frequencies but not to hear in the high frequencies are not considered potentially satisfactory users of hearing aids. All hard of hearing children should be guided in using their remaining hearing together with their sight to increase ease of communication with others.

Children who are hard of hearing may need help in the area of language. Children with mild hearing losses and those who become hard of hearing after the age at which language has been well established generally will not suffer language handicaps. When considerable loss of hearing has been sustained from infancy or early childhood, language limitations may become evident. Many severely hard of hearing children have been misjudged as being deaf or even mentally retarded because of their lack of facility in oral language. Those who show such extreme deviations, as well as those with milder disabilities, will need concentrated special help in vocabulary development, language usage, and reading. The amount of services extended to such children will have to vary with their ages, intelligence and social adjustment as well as with their language handicaps. Generally, they need daily help from specially trained teachers.

Children who are hard of hearing may need help with their speech. Though not all hard of hearing children require special help in speech, a great many do. Some may need only a little guidance, while others may need a great deal. It is not an uncommon occurrence to find that the children who have severe speech defects also are the ones who have language disabilities. For these children, programs which integrate

language and speech improvement are necessary. This means that a great deal of the day's work is done under the direction of specially trained teachers.

When the hearing of children in the intermediate or upper grades is suddenly lost, sometimes almost completely, it is only a matter of time before their voices take on the distinctive characteristic of the deafened person's. These children need help in maintaining flexibility of voice and clarity of diction.

Children who are hard of hearing may need special educational provisions. An educational program which brings the necessary help to hard of hearing children must complement and supplement that of the regular school. This can be achieved in several ways:

✓ Itinerant teachers may visit hard of hearing children. In many localities speech therapists, trained in problems of hearing, are assigned to help the children with milder losses once or twice a week. They give children instruction in speechreading and use of hearing aids. For the more severely handicapped who are socially well adjusted and are able to accept the frustrations of being part of a large group which can communicate freely without difficulty, trained teachers of the hard of hearing may visit the classrooms daily where these children are part of the group. They will assist the children in the areas in which they need help. They may also help the children's classmates and teachers to appreciate some of the problems which arise from hearing impairment.

✓ Special classes may be organized for children who are hard of hearing. In large urban communities where there are considerable concentrations of hard of hearing children it may seem more economical to bring the more severely handicapped children to centers located in the regular elementary schools. Some of the children will spend most of their day in their regular grade rooms and come to the special class teacher for periodic but regular help. Others, depending on the degree of their language and speech disabilities rather than on the degree of their hearing losses only, will spend a greater amount of time in the special class. Many factors including those of emotional adjustment and maturity, intelligence, and ancillary disabilities should determine the means by which the education program for each child is organized.

✓ A successful program for the hard of hearing requires more parent participation than does the program for the normal child. Not infrequently, parents refuse to accept the fact that their children have hear-

ing defects. If they do begrudgingly acknowledge it, they still may be unwilling to accept it psychologically. Such parents need the help of other parents who take a reasonable attitude toward their children's losses. They may also need deeper psychological therapy which, unfortunately, most schools do not furnish.

Living with children who are hard of hearing requires a certain amount of understanding. Parents should be aware of the problems involved in communicating with their children; they should understand the meaning of hearing losses and the advantages and use of hearing aids. The ease of living with a hearing loss can be enhanced by an understanding family.

Though certain adjustments for hard of hearing children within the regular classroom are necessary, they do not exactly come under the category of being "special." They should be standard operating procedure in any classroom where there are hard of hearing children. For that reason they bear mention here.

1. Hard of hearing children should be allowed to sit where they can hear. They should be trusted as being the best judges of where that is. If it is necessary to change seats occasionally, that should be their prerogative.

2. Teachers and classmates should face the light when talking. It is difficult to read the lips of silhouettes.

3. Teachers and classmates should try to speak clearly and distinctly, but naturally. Exaggeration makes speech-reading difficult.

4. Thoughts should be rephrased rather than repeated when hard of hearing children do not understand. A sentence, once begun, should be completed.

Children who are hard of hearing are so much like other children that they should share the educational program of their brothers and sisters, but they will need some additional consideration and treatment. Within the framework of the regular elementary or secondary schools, special teachers will guide hard of hearing children to use their sight to complement their hearing and to develop adequate expressive verbal skills.

39. The Meaning of Severe Deafness in the Life of the Young Child *

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Thus far, we have considered hard of hearing children or children who have partial functional hearing. In the next two articles we consider the deaf child who has a hearing loss of greater than 60 decibels. These are children who generally must learn to communicate through the use of specialized techniques. Robert E. Roach discusses the adjustment problems of these children and considers how they can be helped during the early formative years.

The child with normal hearing learns his language and speech primarily because he hears the speech of those about him. Parents and family talk to him from the day he is born. He hears speech that describes the things he sees and feels, speech that tells the feelings of his parents, speech that accompanies many of the experiences of his life. And just as he gives back the love, the resentment, the security, the happiness or the anxieties which he absorbs from his environment, so does he give back the speech.

The child with severe deafness also absorbs the influences of his environment, and he also gives back the love, the security, the anxieties—but he does not give back the speech which is a part of the activities about him. He fails to give back the speech because he is unable to hear or hears so little that he does not learn the language necessary for verbal thought or the speech with which to express himself.

Persons who have normal hearing and consequently the language

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to think with and the speech with which to tell of their thoughts, usually accept the benefits of normal hearing and think little about it. In the main, few understand the meaning of severe deafness and its impact on the life of the young child. Particularly is this true when the young child because of a severe hearing loss has not acquired language and speech.

It is questionable just how well an individual can comprehend experiences which they have not known, in this case, severe deafness in early childhood. However, by assuming a vicarious attitude, partial comprehension may occur of what it is like not to hear the speech of others, not to hear one's own voice or the sounds of the world. By far the most difficult thing to do is to try to imagine what it must be like to have no words with which to think or express thoughts. In other words to be wordless.

It is this wordlessness which results from early severe deafness that constitutes the deaf child's greatest problem. Because of his wordlessness, he must think without using words. Due to the lack of words, the range of the deaf child's thoughts is seriously restricted and his intelligence can not be given the opportunity it needs for full development (3).¹

As a result of severe deafness and resulting wordlessness, the deaf child is not only limited in his ability to understand the speech of others and unable to express himself in speech; but also his social, emotional and educational development is usually retarded.

Now to consider the manner in which the young deaf child, with a severe hearing loss, communicates and the limitations he experiences with the tools at his disposal.

Due to inability to communicate with words, the young deaf child is dependent upon the use of gestures of various types, facial expressions and vocalizations.

Heider and Heider (4), who studied the communication of young deaf children, report that they have considerable difficulty in communicating when the situation is such as to give little help in explaining the meaning of their gestures, expressions and vocalizations. For example: a child can get a person's attention by using his voice, can then point to a toy in the room, and by means of facial expression tell the individual that he wants the toy or that it is his. However, if the toy is lost or in another room, he could get attention by vocalizing, could indicate desire

¹Numbers in parentheses refer to References at the end of the article.

with his facial expression, but he could not identify the toy. He would then have considerably more difficulty in satisfying his desire. Likewise, it is difficult for him to express thoughts about past events or future happenings because often there is nothing in the present situation to help explain past or future events (4). The questions of Who . . . ?; What . . . ?; Where . . . ?; When . . . ? that he may need to fulfill his desires can not be differentiated one from the other by use of the gestures and facial expressions at his command. This can only be done when the context of the situation is sharply enough defined to make them clear (4). Heider and Heider point out many other ways in which the deaf child is limited in his communication.

One of the effects of these limitations to communication is to reduce the extent of the child's experiences. Limitation of experiences may result in a slower rate of social development. The play which a child has with other children is important to his learning to get along with and to learn to respect the rights of others as well as to recognize his own rights. In the area of play, particularly imaginary play, the deaf child is often uncertain as to his part in the game and thus his participation is restricted. Heider and Heider (4) write, "Imaginary play is possible for deaf children, but in cases in which more than one child is involved it is largely restricted to the level of action. The role play which is very important for hearing children of these ages, is especially limited. The deaf child often initiates group play that breaks down because he is unable to make the nature of his imaginary situation clear, as the hearing child would, by using a few words to supplement the pantomimic presentation."

The socialization which results from the give and take of group play is not experienced to the same degree by the deaf child as by the hearing child of the same age. Consequently, continued experience of this nature may result in slower social development for the deaf child. Myklebust (6) in his summary of the research in the education and psychology of the deaf reports, "It is in social maturation that the handicap of deafness is most apparent. Studies have indicated that the average deaf child is retarded approximately 20 points in social maturity as compared with the average hearing child of his age. This retardation is probably partially a reflection of language inadequacy . . ."

Emotionally the young deaf child is likely to be less mature than a hearing child of the same age because of the greater number of frustra-

tions which he faces every day. Ewing and Ewing (3) state, "The deaf child is subjected to far more strain than the hearing child . . . Much of his emotional experience is determined by his deafness and his wordlessness." These authors continue, "He is continually experiencing situations that rouse in him a sense of frustration." Following are examples of frustrating experiences. (As previously mentioned) the young deaf child has difficulty knowing the goals of the game in group play and in knowing his part in the game. He can't point to things that are not present and thus, in these situations, can not get the toy he wants. He can not ask specific questions unless the immediate environment helps explain the questioning look on his face and since he has no words and probably little lip reading ability, he can not understand the speech of his parents and friends. In addition to the situations mentioned above, there is the problem of telling the child about future events which concern him. For example: it may be necessary to take him to the doctor or dentist. The young deaf child can not be told of the appointment and thus can not be prepared for the experience. In this circumstance, the child is not only entering an unknown situation, but his play and his plans for the day would probably be abruptly interrupted. The hearing child could have been told of the visit in advance and the reason for it. In other words, he would have expected and been somewhat prepared for the visit. These situations and many others present the deaf child with experiences with which he often cannot successfully cope. These are experiences which occur often in the life of the hearing child. Nevertheless, they must happen much more frequently to the deaf child.

For the hearing population, the medium of thought and the transference of thought is through words. Due to normal hearing, the average child thinks in words, speaks words, learns the printed symbol for words and reads, and he acquires knowledge from the speech production of parents, teachers and friends. The untrained deaf child having no vocabulary can do none of these.

The hearing child of three years has considerable vocabulary and, "he can talk fluently as well as listen" (3). The deaf child having no speech or language obviously can not do this. This gap of three or more years in language development may represent a gap of that duration in educational development. One of the major aims in deaf education is not only to prevent this lag from becoming greater, but also to reduce it as much as possible. This may be done only by special techniques and

years of concentrated effort on the part of the child, his parents and specially trained teachers.

In summary, one notes the effects of early severe deafness on the young child as inability to express himself in words and inability to understand the speech of others. In addition to these incapacities and of considerable magnitude is the resulting retardation in social, emotional and educational development.

The deficiencies in communication, in education and in personality development which have been pointed out to result from severe deafness in early childhood, present formidable problems. However, the brighter side of the deaf child's future is that the majority of deaf children are mentally normal and with proper training, through the years, may become citizens who are self supporting, marry and raise their families successfully. Concerning the deaf and their contribution to community life, Best (1) writes, "The deaf constitute little of an economic burden to society . . . they provide a valuable addition to the productive forces of the land." He goes on to say, "By those who actually know the deaf the common verdict is that they constitute an industrious, sober, orderly element in society, and one possessed of a sturdy economic independence, an element doing its full share in meeting its civic obligation." On the whole, it may be said that the deaf may lead a useful, relatively happy life.

The Parents' Role in the Development of Their Young Deaf Child

In guiding the young deaf child, one of the major principles which must be adhered to in the home, in the classroom and at play is—his needs as a child. These must be provided for by exposure to a normal, happy environment in which he may enjoy the activities and experiences of the hearing child (5). Due to the child's hearing impairment and the parents' uncertainty of knowing what to do for him, there may occur a reduction in the normal experiences to which he is exposed. If such reduction occurs, the child may be deprived of development because he has fewer situations from which to learn. It is the responsibility of the informed parent and the responsibility of the teacher to provide the young deaf child (insofar as possible) with the normal experiences of childhood.

The deaf child, with each experience, should be given exposure to the words and through the situation an understanding of the words which normally accompany each experience. This is done by exposing him to speech in meaningful situations through lipreading and through the use of his remaining hearing. Carhart (2) writes, "... even most so-called 'deaf' children have some residual hearing."

It is by exposing the child, informally, to speech through visual and auditory channels that the parents can aid immeasurably the development of their deaf son or daughter. By doing this, they are training the child in the habit of looking at the face for communication from others and to become conscious that "hearing" can help him understand. In this way the parents may lay a broad foundation upon which their child's future progress is dependent.

The development of lipreading skill should begin as soon as it is known that the child's hearing is seriously impaired. Lipreading uses the visual channel and contributes vitally to the young deaf child's understanding and use of language in its many forms. It may be considered the entering wedge and a constant help in the process of giving him the words with which to think, with which to understand the speech of others, and, as speech develops, to express himself.

If the young deaf child is to acquire lipreading ability, his attitude toward the skill must be a positive one. His attitude and progress may be adversely or favorably influenced by the manner in which lipreading is presented to him and by the attitude of those endeavoring to assist him. The deaf child's acceptance of lipreading will depend on whether it is a pleasant or an unpleasant experience.

Parents may compare their child's progress in lipreading to that of another deaf child. This is ill-advised for two reasons: first, as Lassman (5) writes, "Some children take two or three times as long as other children to indicate understanding through lipreading . . . This apparent slowness in lipreading is not necessarily a sign of retardation, of inability to lipread, nor any other negative sign"; second, to become impatient because the child does not learn to lipread quickly may result in his becoming aware of parent dissatisfaction and concomitantly there may be greater "pressure" on the child to make more progress. The disapproval and possible pressure may bring about the development of a negative attitude toward the process of lipreading causing retardation in the child's advancement.

Lassman (5) states, "The first requirement in training the child to lipread is that everyone talk to him whenever it is possible and plausible to do so. The parents must talk about something related to the child in the situation where he is found, to something which the child can see either as an object or an action." When speech accompanies many of his activities and describes the objects and actions in his perceptual environment, he will, in time, connect the facial movements he sees with the actions or objects of the moment. When this happens, the child is lipreading, i. e., understanding oral communication. He has begun the process of understanding speech by watching the faces of those about him. He will need to see the words or phrases spoken many times in the same situations just as the hearing child needs many repetitions before he understands.

Parents and friends should talk to the young deaf child in sentences when sentences are normally used. To use one word when a phrase is indicated is to expose the child to language which is incorrect.

When talking to the child, the parents must be careful not to exaggerate the speech movements. Speech should be produced normally in a conversational voice. The speaker's face should be easily visible and not obscured by shadows.

As mentioned earlier, most deaf children have some residual hearing. This residual must not be disregarded for it may have a valuable role in future progress. The process of taking advantage of the deaf child's remaining hearing is "auditory training." Myklebust (7) defines auditory training as, ". . . training in the use of the hearing which remains, so that sounds which are heard can be understood." The parents can make significant contribution to their deaf child's development by beginning this phase of his training. As Lassman (5) states, "The child who is trained to use his residual hearing to the fullest extent develops a better understanding of the relationships between sounds and objects, sounds and actions, sounds and people; and he begins to associate the sounds of speech with the language he has learned through lipreading. This inevitably leads to better speech and a more comprehensive grasp of language."

When beginning auditory training, it must be understood that, "the very young deaf child has no conception of what 'listening' means and it becomes necessary to give him a pleasant and enjoyable first experience with it." The results of auditory training will be more effective

if the parents will realize that the training will be a slow process (5)."

With the very young deaf child, the parent may begin by talking in a conversational voice and singing close to his ear, choosing the one which seems more effective. The conversational voice close to the ear is sufficiently loud to be heard by many deaf children. This should be done from the time his deafness is discovered and before he is ready for the use of a hearing aid or headphones. Exposure to speech through "hearing" may be given many times throughout the day whenever it is appropriate to tell him about the objects and activities of his environment. However, lest one forget the importance of lipreading, it needs to be understood that auditory training and lipreading are not dichotomous in the training of the deaf child. Each lends support to the other in aiding the child's progress. Therefore, find opportunity to combine them when speaking. This will mean keeping the face at a sufficient distance to allow the child to lipread and "listen." At other times the speaker's lips may be brought closer to the preferred ear, strictly for auditory training.

The one basic principle underlying all that has been previously mentioned is that the parents must TALK-TALK-TALK to their child. He must learn that communication comes from the face. He must be exposed to language visually and auditorily—just as is the hearing child—but because of his deafness, his eyes will be the principal avenue through which he absorbs language and the thoughts expressed by speech. The speech movements he sees on the face and the parts of the speech sounds that he may hear are not only to become meaningful, but sooner or later are to be imitated and be the beginning of his speech development. Every experience should be meaningful and be accompanied by speech appropriate to that experience. When this has been done, the deaf child will profit according to his abilities, provided the lipreading and auditory training have been so presented that he has maintained a positive attitude toward these experiences.

The person who is to guide the child may ask, "Where do I start? What words shall I begin with? How fast shall I try to progress with him?" Let the child decide these things. Watch him at play, notice the toys he prefers, the activities he likes, the clothes he wants to wear and tries to put on, the routine activities of his life. Talk about all of these whenever it is appropriate to do so.

The following specific situations may be used to expose the young deaf child to language:

AT THE DINNER TABLE. Tell him what is hot, what is cold, which is a spoon, knife, fork, cup, glass etc.

IN HIS BATH. Let him feel the hot water and the cold water, play with the soap, indicate to him the wash cloth, the towel, and talk to him about his bathtub toys. Tell him when he is wet and when he is dry.

ABOUT HIS CLOTHING. Name his clothing for him. Tell him to put on his socks, shoes etc., by saying, "Put on your shoes—we are putting on your shoes—we put on your shoes, etc."

PARTS OF THE BODY. Name his fingers and toes, nose, hands, etc. Play with them, talk about them. If the child hurts his finger, "Did you hurt your finger? Let's put a bandaid on it, etc."

PLAY GAMES. Play hide and seek with objects. "Can you find your truck? Where's the car? Look behind the sofa." Provide puzzles, lotto games, finger painting, pegs and educational toys. Call attention to the colors and the names of the toys.

THE FAMILY CIRCLE. The parents and other children in the family may "read" stories to him by showing pictures. Point out the people, the animals, and the objects in the pictures. Tell him about them and when possible act out the stories as shown by the pictures.

The situations mentioned above are suggestions. There are many other experiences about the home and related to family life about which the parent may talk and describe so that the child's background in language, lipreading, auditory training and speech may have the opportunity to grow.

In relation to the many situations which the deaf child experiences—discuss everything that happens: before, during and after the action is completed. He must have meaningful repetition many times before he will comprehend or show understanding.

Thus far only the child's reception of communication has been discussed. He will, of course, endeavor to express himself. As has been pointed out he has gestures, facial expressions and vocalizations with which to do this. When he does communicate it is suggested that his ideas, thus presented, be put in words for him. At the same time, he must know that he is understood. This provides further exposure to language related to items of interest to him.

It is recommended that when the deaf child reaches nursery school

age he be enrolled in a nursery school for deaf children. Particularly, if the nursery school is so located or so arranged as to permit the child to remain in the family circle.

Silverman (2) reports from a study, conducted at the Central Institute for the Deaf, which compared a group of children whose education began at nursery school age with a group who entered school after the age of five. It was concluded, "It would therefore seem that consideration of the future of a child should lead to the decision to enroll him if possible in a nursery school for deaf children in order to give him the best opportunity for a normal social, academic and vocational adjustment to a hearing world."

Entering the child in a nursery school for deaf children does not replace the parent in his role in the child's life. The parents who have endeavored to assist their child by exposing him to normal language through lipreading and auditory training have not only helped their son or daughter, but are also better equipped to cooperate with the nursery school teacher in furthering their child's progress.

In conclusion: it has been the observation of the writer that the preschool deaf child who has been talked to in meaningful situations is better prepared to receive immediate benefit from a nursery school program and that he progresses more rapidly in his speech, language and personality development than does the child who has not had this exposure to spoken language.

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40. Adjustment Problems of the Deaf Child *

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What unique problems face the child with a severe hearing loss? How does the loss of hearing at a later stage of development differ from the problems posed by severe deafness in infancy? In this article Grace M. Heider discusses the adjustment problems presented by deafness considered both as a sensory defect and as a handicap to communication.

The adjustment of the deaf can only be considered in terms of what deafness involves, i.e., of the difficulties to which the deaf person must actually adjust beyond what is required of every human being. These may be thought of as representing at least two different levels. First, there is the sensory defect itself. The causes of deafness are many but their effect is more or less uniform in that it means a cutting off of auditory stimulation. Important variants in this situation are the degree of the handicap, the age of onset, whether the restriction of external stimuli is accompanied by internal head noises, and whether the onset of deafness was sudden or gradual. Profound deafness in some cases begins with little or no warning. Very significant is the fact that it is usually irrevocable. Less is known of the pathology of the ear than of the eye, for example, and the ear is less accessible to treatment. Hearing once lost is seldom regained.

On a second level we may consider the fact that hearing is the basis of the means of communication used by the members of the non-handicapped group among whom the deaf person lives. Because the deaf child does not hear he does not spontaneously learn to speak or to understand others. Special training brings him some measure of facility in

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making himself understood and in understanding others but, as one educator of the deaf has said, what he gains is, at best, a crutch. The speech of the deaf is never so good that it can "pass" for that of a non-deaf person because the process of learning to talk and using speech is psychophysically different. When the deaf person speaks he is carrying out acts of which he cannot experience the full sensory effects. Similarly with lipreading, he must learn to understand a visual pattern of speech, and many of our common speech sounds are made with parts of the vocal apparatus that cannot be seen. The person who loses hearing later in life may retain perfect speech or speech that approximates that of the person with normal hearing, but he is handicapped in trying to understand others. Further, in the case of the deaf child the fact that he must begin to learn language later than the normal child, perhaps at a time when the greatest readiness for language acquisition has already passed, and that he must learn it without the wealth of emotionally tinged auditory experience which comes to the normal child without effort on his own part, means that he is seriously retarded in this area over a period of years, if not permanently. And this broad handicap in communication in turn brings with it a series of consequences, educational, social, and economic.

How far the primary handicap, i.e., the loss of sound as sensation, affects adjustment is a question that has been raised and not answered. Certainly sound plays a part in the structuring of the world of the person who hears. It has been suggested that sound sensations in themselves have an emotional or aesthetic value and that the deaf often try to secure greater stimulation in other ways to compensate for the relatively cold, lifeless media of the other senses. There seems to be no direct evidence on this point. Deafness brings a certain amount of physical insecurity but it is interesting that deaf children on the whole seem, if anything, less prone to fears than normal children. This may be because there is less possibility of spreading tales of imaginary dangers, of witches and bogey men, in such a group and fewer accounts of accidents and fires.

Whatever the effects of the sensory deficiency itself, there is no doubt that the language handicap of the deaf and the consequences that follow in its train are much more important in determining their life situation. And what is most significant about this aspect of the handicap is that still more than the sensory loss it brings the individual psychologically into regions of insecurity and conflict. Because the deaf are

relatively few in number they may be said to occupy the position of a minority group in the world of the non-deaf and their situation involves many of the problems common to all minority groups. Some, especially among the deaf themselves, have suggested that they should escape some of their educational and social problems by giving up the effort to learn the means of communication developed by persons with normal hearing and that they should use a language of hand gestures for which they have full physical equipment. This would mean that they would live in groups of their own kind with whom communication would be as free and effortless as oral communication is among the non-deaf. These alternatives—living as handicapped members of the larger social group or living as fully privileged members of relatively segregated groups—represent very different social situations in which the problems of adjustment and personality integration are not the same. Actually both of these alternatives exist in our society and the individual deaf person, once he leaves school, is usually faced with the decision of choosing one or the other or an intermediate position. To many, the possibilities of the segregated group in which he may be a full member are enticing. At the same time there are many arguments against it which influence the decision of entering or remaining in such a group. First there is the linguistic fact, that manual means of communication never remain complete translations of the spoken language from which they are derived. The sensory data of the two differ and their inner dynamics follow different patterns which pull them further and further apart. The manual language of the deaf, even if it be taught in school as a direct translation of the spoken language, soon becomes colloquially different and grammatically less differentiated. Some educators insist that the language of the deaf should develop its own structure but the final result is that the individual who thinks in this language becomes less and less at home in either the written or spoken forms used by the “outside” group. In many cases it means that he finds it increasingly difficult to read the books and journals of the majority group and that he comes to live more and more exclusively in the thought of his own limited group. Some of the deaf discuss just this fact in regard to the decision whether to remain within the minority group or to take a position as near as possible to the larger group. For instance one deaf person said: “My contacts with deaf people have been very agreeable but as the years went by I grew tired of them because the

greater group of deaf people talk about themselves. These are the ones who almost do not make contacts with hearing people."

Another problem of segregation is that it is never complete. The deaf must remain economically part of the larger group whether they live among the non-deaf or in separate groups. Neither can the segregation have the continuity that a segregation based on race, for example, may have. While there is clear evidence that certain kinds of deafness are hereditary, possibly as recessive unit characters, the fact remains that most of the deaf have parents who hear and most of them have one or more non-deaf siblings. Many who marry have non-deaf children. And for many of the deaf the facts that are known of inheritance raise further conflict as to the wisdom of segregation. Alexander Graham Bell in 1884 published a treatise entitled "Upon the formation of a deaf variety of the human race" in regard to problems of intermarriage among the deaf and those having deaf relatives. Recent research, while discounting the likelihood that the final outcome suggested by Bell would ever be realized, emphasizes the importance of heredity in showing that it probably plays a part in many cases of so-called acquired deafness with the onset in later childhood or adult life as well as in many congenital cases.

All this means that the deaf person is faced with a choice between using tools of communication for which he lacks the full physical equipment and living as a marginal member of the larger group, or immersing himself in a minority group which offers certain insulation from the tensions of the marginal status but at the same time no real separation or continuity. The decision is not an easy one and often involves guilt feelings built up by advocates of one form of education or the other during his formative years. Data from former pupils of schools for the deaf show that the insecurity and conflict involved in this decision play an important part in their adult lives.

Aside from these problems of group membership, the deaf person is faced with insecurity in all his personal relations with members of the non-deaf group. If he tries to use oral communication, with a stranger at least, he is never sure whether he will be able to understand or make himself understood. If he writes he is demanding that the other person take extra time and treat him as a special case. If he were wholly cut off the situation would not be so tantalizing as that in which he finds him-

self, where he can understand part of a conversation and then perhaps lose just the key word that explains everything. The boundaries between what he can and cannot do are not clearly defined and from this point of view his whole life situation is poorly structured. In other respects his situation is one that would be trying to anyone: plans are made and people move about him. He is expected to fall in and do what the group does. He is blamed and considered "stupid" if he does the wrong thing, yet a nuisance if he wants the activity in hand to be interrupted so that he can get a full explanation.

This question of being considered inferior by the members of the majority group whose standards he cannot fail to realize is one that is brought up frequently by the deaf themselves. Montague, for example, writes: "Yes, it would be helpful if one's friends would realize that it is deaf ears, not feeble minds, that make us slow on the uptake." And the fact that the deaf are often socially and economically at a disadvantage in relation to the hearing world only confirms the feelings engendered by personal contacts in which their failure to understand the import of a situation puts them in the position of being less clever than others, and often in the position, as Montague says, of being moved around by them, "like a piece of furniture."

Another important factor in the lives of many children who are deaf from their early years is the fact that they are sent away from home for their education. No adequate evaluation of the effect of this kind of separation has been made for either deaf or hearing children. Burchard and Myklebust have shown that the residential school deaf child measures as less mature on the Vineland Social Maturity Scale than the deaf child who lives at home and attends a day school but there are many deeper problems involved in taking a child of two or four or six away from his home. In many cases the fact that he is singled out from among his brothers and sisters to be sent away may easily be felt as rejection; the weakening of the early identifications and relationships must have some effect on the integration of the personality. Further, the amount of regimentation which can hardly be avoided and the relative impersonality of relations in the ordinary residential school makes the social climate very different from that of the average home. Whether it be for better or worse is not yet proved, but for many deaf children it seems to be educationally unavoidable. No other way has been found to provide adequate specialized training for the one or two deaf children in a small

community or even the number who might form an ungraded class in the community of moderate size. In the larger cities, schools in which the child may at least go home every week-end are becoming more and more the rule.

If we try to summarize the direction of difference between the life of the deaf and that of the non-deaf child which all these aspects of his handicap indicate we may say that each is such as to involve basic insecurities and conflict. What is the effect of this on the individual deaf person? So far there is no definite answer to this question. A number of studies have been made, many following the pioneer work of Pintner in using such means of evaluation as the Bernreuter Personality Inventory. These studies attempted to answer the question whether the deaf were more or less introverted, more or less neurotic, more or less stable than the non-deaf. The more dynamic studies of personality have already shown the relative sterility of this approach with the normal groups for which these instruments were designed. They are still less fruitful for comparing the original groups with special groups for which their items may have entirely different significance. For example a question such as: "At a reception or a tea do you feel reluctant to meet the most important person present?" may well indicate a feeling of insecurity or withdrawal on the part of a person with normal means of communication at his disposal, but for the person who is not sure whether he will understand what the other will say it need indicate nothing more than sound social expediency. This series of studies has given no decisive results even within the limits set by its measuring instruments. On the whole it has shown that the deaf are slightly more introverted, slightly more neurotic than the hearing but the differences found were so slight in comparison with the differences between the two groups in their life situation that they can only lead us to deny almost entirely the influence of environment on the formation of personality or to conclude that the measures used failed to touch the dimensions that should be studied. The latter alternative is certainly the more plausible.

Some exploratory studies have been made to resolve this situation. On the one hand there are studies which attempt to describe the psychological situation of the deaf in order to define more clearly the directions in which differences may be expected to occur. Attempts have been made to use projective test material such as the Rorschach or Thematic Apperception Test but with deaf children or adults who have been deaf since

childhood the picture of the personality becomes confused with their language limitation and it is hard to know what significance the results may have.

In another study an analysis was made of language used by deaf and non-deaf children in describing a short motion picture story. This analysis showed that the language retardation of the deaf involves not only the level which they may be expected to have reached at any given time in sentence structure and type of sentence used but also the dynamics of the thought structure. They used relatively rigid, unrelated language units which followed each other with little overlapping of structure or meaning. They constantly interrupted a narrative to explain "why" and rarely spoke of what was only a possibility rather than a realized fact. If we consider such a language task in any sense as a projective technique, these differences may point to differences in personality structure as well as to differences in intellectual development.

An experimental study with pre-school children has shown differences in personal relationships between deaf and non-deaf at early age levels. In this study a game which only one child could use at a time was offered to pairs of children. Sixty-six pairs of hearing and 48 pairs of deaf children were observed in this situation and the results showed that with the hearing there was much more tendency for one to dominate the game than with the deaf. Further, when the descriptions of the games as they were played were classified in terms of degree of structurization it was found that those of the hearing were again more highly organized and showed greater continuity of structure. These differences can be explained in part by the fact that the hearing had more effective tools of communication at their disposal. The ways in which language was used to enable one child to gain control of the situation without arousing either aggression or withdrawal on the part of the other gave fresh appreciation of its function in social relationships. At the same time these data brought into sharp focus the question of the effect of the more diffuse, less structured, less sharply oriented social relations of the younger deaf child on the development of his personality. It is hard to avoid the suggestion that there must be significant effects but so far no techniques have been tried which served to evaluate them adequately. This task remains to be attacked, and only on the basis of a deeper understanding of the structure and dynamics of the personality of the

deaf can there be built descriptions of the characteristic adjustments and directions which psychopathological developments may take within this group.

41. Speech—An Index of Maturity *

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Parents, teachers, and others concerned with youth should recognize the importance of good hearing and correct speech. Speech problems are perhaps more prevalent than any other type of handicap. To understand the difficulties in this area, one must know something about the development of speech. Duane C. Priestersbach and McKenzie W. Buck discuss the development of speech sounds, speech fluency, language development, and voice.

Our speech and the verbal forms we give to it, in our attempts to order our environments, are unique and intimately personal to each of us. Speech is one of our most effective means of self-expression. It would seem obvious, then, that the evaluation of speech behavior may be one of the means available for determining an individual's level of growth and, in some respects, his degree of emotional maturity.

Our speech behavior is determined in part by the experiences we have had in learning to express ourselves. In one sense, those of us who have normal speech have been fortunate. Given certain environmental circumstances we, too, might have stuttered, refused to talk, or lisped. We also might have been born with a cleft-lip or palate, developed de-

* Reprinted and edited from *Childhood Education*, 27: 260-263, February 1951, with the permission of McKenzie W. Buck and the Association of Childhood Education International, 1200 Fifteenth St., N.W., Washington, D.C.

fective hearing, or grown up to have crooked teeth, all of which might account for individual differences in our speech.

In view of the fact that an individual's speech behavior may be the result of forces over which he has had little or no control, the description of his speech behavior at a particular point in time serves little purpose other than to fix his level of growth. By itself, the description contributes little to the diagnosis. It does not provide adequate cues as to how the individual came to be this way or what his potentialities are. Since physical anomalies, socio-economic status of the parents, the presence of siblings, the emotional adjustment of the parents, and related situations, may have been factors contributing to his present condition, a diagnosis or evaluation can be made only after the impact of the individual's total environment has been studied and evaluated.

The discussion will deal with certain indices of speech behavior which may describe an individual's level of growth. But it is the writers' opinion that the use of such measures *by themselves* to evaluate an individual's adjustive ability is indefensible. The aspects of speech behavior to be discussed are: speech sound development, speech fluency, language development, and voice.

Speech is learned behavior. None of us was born with the ability to combine sounds into units of social codified meaning. The sounds we used during the first few weeks of life were simply the by-products of our swallowing, sucking, belching, facial grimaces, and crying.

Over the months we learned to make more and more speech sounds. Slowly, yet definitely, we began to associate specific sounds with specific objects, forms, and feelings. By the time we were three years old, we were probably producing more than half of the sounds in the English language, even though we may not have been using them consistently in our speech. In any event, on the basis of the information which we now have, any of us who mastered the production of all the speech sounds of English before we were eight could be considered normal.

Some of the speech sounds, for example, *p*, *b*, and *m*, characteristically appear in the speech of children before other sounds do. Such sounds as the *th*'s (*that*, *thin*), *s*, *r*, and *l*, show up later in a child's speech development. Speech containing substitutions such as *th* for *s*, *w* for *r*, or speech that omits these difficult sounds is commonly called "baby talk."

The typically late development of certain sounds can, for the most part, be explained logically. They may be sounds which demand a precise positioning of the articulators and thus require a lot of experimentation by the child before he hits on the right combination of movements, pressures, and positions. They may be sounds, like *k*, which have few visual cues. They may be sounds like voiceless *th*, which are not acoustically prominent, distinctive sounds in our speech. As a consequence, the child, learning as he does to speak primarily on the basis of what he hears and sees as speech, may frequently be confused as to the identity of such sounds.

Several factors may account for the persistence of "baby talk" beyond the sixth or seventh year. On the one hand, the child's social environment may have provided little speech stimulation and few, if any, good speech models to go by. In such instances, the child may have done as well as possible with the limited speech experiences that were available. Such a child is immature to the extent that he has not developed speech skills comparable to children of his own age. It must always be remembered that the retardation is to be accounted for largely in terms of the inadequacies of his environment rather than in terms of the physical, emotional, and social inadequacies of the child.

On the other hand, the "baby talk" may be a form of aggression whereby the child seeks to obtain his wants and perhaps to punish those who have stood in his way. Perhaps there is a younger brother or sister in the household who is competing with him for attention and affection. Regression in speech behavior may be one of the ways of obtaining more attention and a greater sense of security.

From the child's point of view, he is not going to the trouble of learning to talk acceptably unless he can see that it is to his advantage to do so. He won't have the motivations to change unless the new behavior makes for situations which offer more of a sense of security than does his present environment. Again, the mere description of his current behavior can have no meaning unless it is studied in the light of his past experiences and present environment.

Not only does the child of three or four frequently have defective articulation, by adult standards, but he also evidences many hesitations, prolongations, and other disturbances of rhythm. Van Riper¹ lists the

¹C. Van Riper, *Teaching Your Child to Talk* (Harper, 1950), ch. 10.

following obstacles to fluency at this age: (1) lack of vocabulary, (2) complexity of grammar structure, (3) choosing the correct word order, (4) searching for the correct word, (5) interrupting influences in the child's environment, (6) fear of unpleasant consequences of speech and (7) speech exhibitionism.

When we appreciate the many demands which are placed on the child of this age it is little wonder that Davis² found that the average child of two-to-six years repeats a sound, a word, or a phrase forty-five times per thousand spoken words in spontaneous free-play speech. She also observed that the types of repetition rank as follows: phrase, word, syllable. She observed no clear-cut sex differences except for measures concerning syllable repetition. Here she found more repetition for boys than girls. Johnson³ sums up the matter by saying that "a very considerable amount of non-fluency is characteristic of normal speech at all age levels."

We may conclude that as the youngster approaches school age he has established a level of fluency that may not undergo any marked change during the remainder of his school years. He has had practice and play with speech sound production, acquired a large enough vocabulary, and developed his language usage sufficiently to give himself little reason for non-fluencies which are severe enough to be noticed by others.

It is very important to know that normal children, and adults too, repeat considerably and are in other ways non-fluent in speaking. Calling attention to non-fluencies may be disastrous. Johnson indicates that pressure on the child regarding his fluency may actually *create a stuttering problem*. In view of the fact that, in our culture, parents and others frequently have standards of fluency which are too high, it is probably wise that measures of fluency be used with a great deal of caution as indices of maturity.

Words can be manipulated in unique and characteristic fashions. There are different modes for different age levels. The child of three years typically frames a large proportion of his verbalizations in the form of questions. Later comes the chattering, then the teasing, and still later the "pig-latin." That children pass through these stages to a more

² Dorothy M. Davis, "The Relation of Repetition in the Speech of Young Children to Certain Measures of Language Maturity and Situational Factors," *Journal of Speech Disorders*, 4: 303-318 (1939); 5: 235-241, 242, 246 (1940).

³ W. Johnson, et. al., *Speech Handicapped School Children* (Harper, 1948), ch. 5.

stable or conventional adult type of expression is certainly a sign of maturity. However, detailed norms are not available for such behavior and the range of individual differences is great.

Language development is influenced by the occupational levels of the parents. As McCarthy⁴ indicates, those children in the upper groups show a much higher proportion of adapted information and of questions, elaborated sentence structure, and greater average length of responses. Actually, then, before one can scale a child's language development as an indication of his maturity, it is essential to account for the immediate environment.

If we think of language as a symbol system which we can use to manipulate the behavior of others and which others, in turn, use to control us, we can appreciate the fact that our sensitivity to the structure and purposes of language may also be an index of maturity. As pointed out by one of the authors⁵ in reference to adult speech:

The maladjusted person is usually totally unaware of the symbolic nature of language. He does not appreciate the fact that words are abstractions of the "real thing"—objects, experiences, feelings. . . . Nor does he realize that when we talk about an object or an experience or a feeling we leave out some of the details thus making it impossible for us to tell "all" about the object, experience or feeling. Further, he usually does not recognize that there are many different levels of abstraction; he may either include such a myriad of details that he is unable to observe any relationships between the various facts, or he may talk almost entirely in generalizations, excluding the relevant details. In the latter case he will be prone to rely on theories, beliefs, customs rather than to resort to relevant experiences and observations of his own. In such instances there is a good possibility that the verbal maps which he is using have little resemblance to any existing "real" territory.

The maladjusted person is frequently unaware of the fact that the statements he makes are likely to tell more about himself than the phenomenon which he is describing. He seldom uses such words as "it appears," "it seems," "from my point of view," "as I see it." Rather, he actually thinks he is talking about the weather when he observes that it is a fine morning, instead of reflecting the

⁴ Dorothea McCarthy, *The Language Development of the Pre-School Child* (University of Minnesota Press, 1930).

⁵ D. C. Spriestersbach, "The Role of General Semantics in Counseling," *Education*, 70: 515-518, April 1950.

state of his digestion or the good showing he has just made on an examination.

Such naive language behavior is quite evident in the young child. Indeed, most of us have a great deal to learn about our symbolic processes; few of us can claim to be extremely mature so far as insight into our own language functions is concerned.

In general, the immature person does not use his language in problem-solving fashion. His remarks tend to cloud issues, and magnify difficulties.

Most people are aware that adolescent boys go through a period when control of their voices is difficult. Most boys experience "voice change" between the ages of fourteen and sixteen. Their new pitch level is approximately one octave below their childish pitch level. Until the new pitch level has been established there is considerable jumping from the old level to the new and vice versa, as much to the surprise of the speaker as to his listeners. Since the pitch change comes about largely as the result of physiological and structural changes of the larynx (voice box), it should not be surprising that the change is correlated more closely with bodily development than with chronological or mental age. Since girls do not experience such an abrupt change in the size of the larynx, they do not undergo these dramatic changes in pitch level.

It is possible that in cases where there is lack of the normal amount of pitch change at adolescence there may be some degree of emotional immaturity. It is also possible that an endocrine condition may exist which may retard the change. Because of the wide individual differences and the existence of the possibility of organic etiology, mere description of voice change by itself has little meaning.

There is a common belief that vocal characteristics reveal personality traits. It has been stated that the shy, withdrawn person may have a soft, inexpressive voice while the aggressive, dominant person has a harsh, high-pitched voice. It is certainly true that some relationships do exist between personality characteristics and vocal characteristics. But the more acceptable research which has been done to date on this subject would seem to indicate that the relationships are far from being reliable and valid. It has been amply demonstrated that listeners have stereotypes in this regard; that is, a given type of vocal characteristic is commonly associated with a given type of personality by the listener.

It has also been demonstrated that estimates of personality structure based on vocal characteristics alone are no more accurate than an estimate of intelligence based on judgments of facial expression.

42. Speech Defects *

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Too few schools are able to provide the special services required by speech-handicapped children. As a result, the regular classroom teacher must attempt to help many children with speech defects. Elise Hahn offers some suggestions that will prove helpful to the teacher confronted by such a task.

In a classroom, Joe is stuttering violently. An embarrassed teacher keeps her eyes away from his face. "Mary, you tell us about it," she says brightly. The boy sits huddled, trying to insulate himself against the grins of the group, hating the teacher, who thinks that she has successfully ignored his stuttering and that she has made things easier for him.

Tommy lisps on his *s* words in reading. "Say 'see,'" says the teacher. "Thee," says the boy. They repeat this exchange several times. "Try harder," urges the teacher. Watching his expression, she begins to feel inadequate.

The problem of what to do for speech defects in the classroom is consistently with us, since 6 to 10% of our pupils have such defects.

An article such as this cannot make a teacher a speech specialist. It can, however, suggest helpful procedures and emphasize that every

* Reprinted and edited from the *NEA Journal*, 47: 39-41, January 1958, with the permission of Elise Hahn and the National Education Association. For additional up-to-date information on speech therapy, consult the *Journal of Speech and Hearing Disorders*, the official organ of the American Speech and Hearing Association, Washington, D.C.

teacher can and should do something about children's speech defects, whether she teaches in a small system which does not employ a speech therapist or in a large one which does. There are several fundamental things the teacher can do:

✓ *Recognize the nature of the speech defect.* There are three types of defects encountered among school children. The *first* and most common is the articulatory defect in which one or more sounds are distorted. The *second* is the defective voice itself—harsh, nasal, hoarse, excessively high- or low-pitched, too loud or faint. The *third* is stuttering, which may vary from slight hesitations and repetitions to prolonged blocks and struggle behavior.

The child with a malformation such as cleft palate, the one with poor muscular control, or the one with hearing loss may have both the first types. However, causations of all three may be psychological: Insecurity and hostility in the home and poor adjustment in the peer group may have disturbed the acquisition of speech. Early illnesses or accidents can also affect language learning. Occasionally the primary cause may no longer operate, but the habit will persist.

If the teacher can classify the defect, and observe its physical manifestations, she can often gain greater understanding of the child's needs.

✓ *Keep records.* Defining and noting evidence of the child's feelings about his relationships with other children can start the teacher on a plan of action. The record may include a description of the speech fault with specific details on behavior, the dates of observations, and evidence of the effect of the disorder on the child's personality.

✓ *Set a good example.* If the children identify themselves with the teacher, they will unconsciously imitate her behavior. One first-grade teacher was amazed over the number of lisps in her class. "I can't understand it," she said.

Children will not only copy a teacher's articulation, but also her rate of speaking, tone of voice, inflections, gestures, pet expressions, animation, or lassitude. If the teacher's voice sounds nasal, harsh, impatient, or indifferent, she may be unable to stimulate the children to want to improve their voices, since the model she offers is unattractive.

The teacher also serves as a model for listening. The child with the speech defect, realizing that he is different, may either withdraw from the group or act aggressively toward it. If the teacher listens to him attentively, with a show of personal interest, the rest of the children

will follow her behavior, and the individual will gradually achieve group membership.

✓ *Create a secure and pleasant environment.* The individual's attitudes toward himself will often stand in the way of his improvement. If his status in the group is poor, a child will have little motivation to improve. Often, the teacher's greatest contribution to speech correction is to find a way to make the child feel valued by the group. Sometimes a youngster has few assets or skills, and several years of cooperative effort among successive teachers will be needed to build his concept of himself as a worthy individual.

The teacher may motivate by encouraging a child's use of good speech habits, such as looking directly at his listeners, adding interesting details, saying difficult sound combinations correctly, speaking so he can be heard by everyone, or changing his voice to show different feelings.

By praising these factors specifically, the teacher encourages the individual to continue improvement even as she calls the group's attention to what constitutes good communication. The praise must be specific, not "How interesting!" or "Thank you for telling us."

✓ *Manipulate the speaking situation.* If a child fears talking before the group, the teacher should arrange speaking situations for him that proceed from simple to complex: He first tells *her* something about home; he talks about some possession to her and to another classmate; he reads aloud to a small reading group; he demonstrates some object to the class in a situation which requires more action than words; finally, he discusses familiar subjects before the group.

✓ *Work directly on articulation.* The sounds which are most commonly defective and develop late in speech are *s* and *z*, *f* and *v*, *l*, *r*, and both voiced and voiceless *th*. The place and method of production of these sounds can be shown to all primary children. For instance, the children can learn songs, repeat words in games, and say poems together. The whole group can pause for a moment to see and hear how the teacher's tongue jumps up and touches her gum ridge when she says *like*, not *wike* or *yike*, and how she uses her lips when she says *run*, not *wun*.

She can introduce guessing games, such as the one in which the child who is "it" thinks of an object within a certain area and others take turns guessing, "Is that the thing you are thinking about?" Thus they obtain practice on *th*.

The description and demonstration of correct sounds can be involved in reading readiness and beginning reading. Ear training should be given so that the child's discrimination between poor and clear production can be developed. Sounds may be named after their characteristics: *L* is a tongue-tip sound; *s* is a blowing or hissing sound.

When the teacher hears a word containing a sound needing improvement, she should take it out of context, isolate the sound to be practiced, and repeat it with the accompanying vowel, blending the two smoothly. She may describe how she makes the sound, pointing out lip, tongue, and jaw action, repeating the sound in the word without exaggeration, and placing the word in a variety of short phrases. She may contrast poor and good production.

Often she should ask why it is wise to use clear articulation, aiming for the answer which indicates that its use will enable the child to be understood quickly and easily. Then the practiced word is placed back in its communicative context, and the reading, the singing, or the game continues.

If all pupils practice sounds, there will be no self-consciousness when the teacher takes the speech-handicapped child aside for a moment of private practice.

The correction activity, whether group or individual, must seem pleasurable, natural, and friendly, rather than critical. Reward must be inherent in appreciation of repeated attempts, in praise for success, or in self-satisfaction.

✓ *Work on vocal problems.* If the voice is consistently hoarse, or is nasal or muffled by nasal obstruction, the child should be referred to the doctor. However, habits of tension cause most poor voices.

The children should set out to discover what makes a good speaker. They might conclude that he is one whose speech is clearly audible, who doesn't talk too fast, whose tone of voice sounds interested and sincere, and whose pitch varies to show his meanings. All these aspects of voice can be readily understood by the children, particularly if the teacher is fairly good at helpfully imitating the poor counterparts.

An assignment of listening may be made so children can report on their listening to the policeman, the janitor, or the store-keeper, and can make judgments of the feelings behind voices.

Any creative dramatics will provide excellent situations for discussing what a voice can do. Often the high, strained, or whining voice

which develops from tension can be improved once the children begin to make judgments on what they like and dislike in other people's voices.

Work with the stutterer. This defect cannot be treated by drill or improved simply by a child's desire to talk more fluently. If his stuttering is pronounced, the teacher should discuss it with him in an objective but friendly way. With a trusted and unshockable listener, he can talk about his feelings, achieve some release from anxiety, and tolerate his hostility and shame.

The teacher should indicate that she knows his stuttering will vary with his feelings; she does not minimize his fears. She hears him out, knowing that her interested listening is better therapy than soothing, unreal statements. She suggests that he try to participate in all class speaking situations, but that she will not make him do so. If she excuses him from oral activities, however, he should make it up in written work.

If a child's stuttering is obvious, he may become less self-conscious if he refers to it before other children. He is not to be protected, but the class, by the teacher's example, must learn to wait out his stuttering and value his ideas. If a school psychologist is available, he should assess the child's adjustment. The teacher is often the key figure in this adjustment, accepting his stuttering and looking beyond it to discover his true worth.

Integrate speech correction with all class activities. Neither speech correction nor general speech improvement is a subject to be studied by the children at a particular interval. Speaking is a way of behaving. The need for good speech must be bound with the need for communicating in reporting, discussing, and reading, in social studies, art, music, spelling, and physical education. The teacher can accomplish something not possible for the speech therapist: She can provide for transfer of training from the individualized short practice session to regular classroom speaking situations.

43. Problems of Articulation *

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Articulation difficulties constitute the most prevalent type of speech disorder. In fact, some speech authorities have estimated that 80 percent of all speech difficulties in children are of an articulatory nature. The following article discusses types of articulation defects as well as some of the ways used to correct poor production and omission of sounds.

In this article the term articulatory defects will apply to those sound substitutions, omissions, and distortions that render speech difficult or impossible to be understood in the child who is of normal or superior intelligence. For convenience, articulatory defects are usually classified as organic, functional, or psychogenic in origin, though there may be some overlapping in classification.

Organic articulatory defects are those caused by an organic or physical handicap. Foremost among organic origins are brain lesions, caused by birth injury, accident, or disease; cleft palate; malocclusion of the teeth; a badly deviated septum; hearing loss, and a tied tongue. It is thought that about seventy per cent of those suffering from cerebral palsy, a result of brain injury, have speech defects requiring special attention. These defects are usually of an articulatory nature because of muscular deficiencies caused by the disease. Many cerebral palsied have a hearing loss and many have a loss of peripheral vision, two conditions that may affect the speech therapist considerably. For the child who cannot hear well enough to imitate or who cannot see exactly what is going on in a speech drill or read speech drills, will require much more work than the normally hearing, seeing child.

* Reprinted and edited from *Speech Correction*, 15-21, Catholic University of America Press, 1958, with the permission of Dorothy Mulgrave and the Catholic University of America Press.

Children with cleft palate, whether they have undergone surgery or have worn or are wearing obturators, may have marked difficulty with back consonants and sibilants.

While malocclusion generally affects sibilant sounds, it also may affect articulation of all tongue-gum sounds. The causes of malocclusion are many and varied. Anthropologists, nutritionists, dentists, orthodontists, and others have suggested possible causes, but whatever the cause the result is likely to be indistinct articulation combined with a lisp.

A hearing loss will naturally affect articulation since the child with a hearing loss cannot hear the sounds produced around him. Unless he is especially alert at lip-reading and is fitted with a hearing aid at an early age, he may have difficulty with all consonants, but especially with the voiceless ones.

While some laryngologists say there is no such thing as a perfect septum, it is certainly true that a bad deviation in the septum affects voice quality and appears to make speech sound lazy in articulation. In cases of marked deviation, the patient may not be getting enough air to insure good muscle tone and vitalized articulation.

Too often the tied tongue is thought of as the tongue that is actually secured to the floor of the mouth. While really tongue-tied children are likely to have their frenums cut within a few days of birth, there are a great many people who, because they seem to have motility in the tips of their tongues, are not considered tongue-tied. There would seem to be a great divergence between motility and what the tongue can actually accomplish in the way of making alveolar sounds. It may, for example, be possible for a person to move his tongue to his upper teeth. This action does not imply that he can negotiate words such as *brilliantly*, *leniently*, *temperamentally*, and thousands of others containing difficult combinations of tongue-gum consonants.

The second classification for articulatory defects is functional. This term applies to those speech faults which do not appear to be the result of an organic condition or an emotional difficulty. It is amazing and many times baffling to discover a child with normal intelligence and hearing and with none of the organic problems indicated earlier, with unintelligible speech.

The most difficult and perhaps the most neglected children in the functional group are those with delayed speech. They sometimes present little behavior difficulty in school, and can sometimes go unnoticed for

a long time. They are occasionally marked as quiet children, a relief to the teacher who is surrounded by "talkers." By the time a delayed speech case is discovered, he may have become a behavior problem. Some children do not learn to speak at the usual age because they have no need for speech. Doting relatives anticipate their every wish. Some children fail to speak at the usual time because of illness. Some do not get a chance to speak because older brothers and sisters are more aggressive. Some do not speak because no one ever talks to them. Too frequently young mothers say, "I never talk to him. He wouldn't understand me."

Whatever the cause, delayed speech exacts a heavy toll from the child by the time he goes to kindergarten. He has not learned the sounds of English properly; he cannot express himself clearly or convincingly. Too often he is ridiculed by his classmates. To the degree that he is sensitive, such ridicule may be annoying, mildly harmful, or catastrophic.

Another kind of functional disorder is baby talk. This disorder may be defined as speech containing sound substitutes and distortions that are generally infantile in pattern. The most common substitutions include *w* for *r* as in wain for rain; *th* for *s* as in thing for sing; *v* for *th* as in brover for brother; *t* for *k* as in tate for cake; and mispronunciation of *l*, sometimes called lalling.

Grandgent in *Imitation and Other Essays*¹ points out that many of the peculiarities of speech in young children are due to correct, rather than incorrect, imitation of the speech of doting elders. Parents and relatives who consciously try to talk "baby-talk" are responsible for many of the articulatory problems of the adult. Speech that is thought to be "cute" at five may be a vocational hazard at twenty-five. By the time a child goes to high school "baby-talk" has become more than a speech defect. It is indicative of a behavior pattern of immaturity.

Inorganic lisping is another functional disorder of speech. This type of defect frequently persists in spite of excellent occlusion. The speech therapist should find out whether or not the child has worn braces. Sometimes in an effort to get away from braces a child will lower his tongue for all tongue-gum sounds. Long after the braces are removed, he may still be producing sounds as though he were wearing braces.

Other reasons for poor production of sibilant sounds may be imita-

¹ Charles H. Grandgent, *Imitation and Other Essays* (Harvard University Press, 1933), p. 20.

tion of poor sounds in the family or among friends. Sometimes lisping is the result of speaking a foreign language in which the tongue touches the teeth normally for the sibilants.

Other functional defects include foreign accent and marked regional dialect. Speech that makes the speaker appear ridiculous or uneducated or uncouth comes under these headings.

Under emotional or psychogenic articulatory disorders, the most disturbing is delayed speech. When, in spite of effort on the part of the family, teachers, and the speech teacher, a child with normal intelligence and hearing, does not talk, it is necessary to look into emotional reasons for the retardation in speech.

These problems may be difficult to reach. Many children are totally unaware of the particular situation that made them feel inferior or the specific time when a younger brother made them feel unwanted or rejected. Sharp criticism at a time when a brother or sister was praised, a lack of understanding by parents of well-intentioned motives, inability to cope with family tensions, or a feeling of guilt may interfere with a child's normal growth in language. As in functionally delayed speech, emotionally upsetting problems should be sought with the stutterer. Generally, he manifests vague anxieties and tensions that show he is not at ease in verbal expression.

The speech defects mentioned above all have some articulatory involvement. The problem is how to improve the defects maximally in a minimum of time. The first step is obviously for the therapist to recognize the type of difficulty and to try to discover overlapping in diagnosis. Sometimes what seems to be an organic defect, for example, may also be functional or psychogenic. After careful diagnosis and observation, the important thing is to group whatever activities can be grouped for the class. Primarily, exercises may be selected for relaxation before any course work is introduced. A few minutes of relaxation may well precede each class period.

For all articulatory cases the most important single activity is finding a way to control the tongue and to make it flexible. On inquiry, one may discover that students have been doing tongue exercises for weeks, or months, or even years. On observation, however, one may discover that the jaw, lips, larynx, and even the eyebrows have been contributing so much effort that the tongue has done but little. Students must feel the strength and muscular activity of the *tongue*. They must also be aware of the activity of other organs. The easiest way to achieve this is to try

tongue exercises holding the jaw down. The extent to which they feel tension and often pain will clarify the need for exercise better than any other method. Stretching the tongue along the palate, holding the jaw down, is one of the most satisfactory exercises because students can feel when they have begun to get control of the muscle. The use of a mirror will, of course, show them when they are doing something other than they planned.

Students should be clear on the reason for tongue exercises. Too many think it a waste of time. Analogies between finger exercises for typing or playing the piano may help them to see the connection between flexibility of the tongue and ability to produce sounds accurately. No matter what the articulatory problem, it is good to attempt to connect tongue exercises with the tongue-gum sounds. These are so frequently faulty in articulatory cases that they make an economical starting point in a class.

The educational world has become so functional that it is sometimes difficult for children and even for other teachers to see the need for drill. Everyone wants to "use" everything immediately. While the speech teacher has this same objective, he may not be able to achieve it unless he is willing to allow sufficient time for correct practice. The mere repetition of meaningless motions with the tongue, the daily practice of words containing *t*, *d*, *n*, and *l* without thought as to the position of these sounds in words, may do more harm than good. Every time the sound is produced incorrectly, the wrong pattern has been reinforced and the student may feel completely frustrated because he is not improving. Word, phrase, and sentence drill on initial, medial, and eventually final sounds will repay the tedium of daily practice. Tongue-twisters should be avoided as the plague!

Language games utilizing repetition of difficult sounds may be used extensively, especially with young children. The ingenuity of the teacher in providing all kinds of visual clues will add variety to practice. Progress charts of one kind or another that children can use to follow their own progress will also stimulate interest.

Lip and palate exercises should be added to tongue exercises or in some cases precede them. In many articulatory cases the lips are flabby and the palate obviously low for all sounds. Whichever exercises seem most important for an individual case should be used. Generally, a few minutes of each type of exercise will be effective in group work.

The teacher of the articulatory defective, especially the functionally delayed speaker or the psychogenic case, should strive to find out all about the child. A history of his illnesses may be important, a careful study of his work in other classes, as close an observation as possible of his relationship with his family. A study such as that of Molyneau² on the speech of kindergarten children points up the need for family verbal activity. In practically all the cases of superior speech, verbal activity was carefully planned, and story-telling was part of the household routine, not merely an activity for a rainy day or when there was nothing else to do; families went on trips together; fathers participated more than in the families in which the children had inferior speech. The speech correctionist should try to find out the linguistic activities of his children. He should try to coordinate these activities with his corrective program. He can, for example, mention a book that a child is reading at home or a story that has been told. Children begin to feel that their activities are important. Too frequently the functionally delayed speaker feels that his ideas are not worth much anyway. He must be helped to feel on a par with his classmates in as many ways as possible.

The old saw about nothing succeeding like success is nowhere more important than in correcting articulatory defects. Every infinitesimal bit of improvement should be noted and mentioned with approbation.

44. Helping Stutterers in the Classroom *

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The problem of stuttering is often misunderstood by the classroom teacher, who, consequently, often fails to recognize her responsibility in working with the child who stutters. John E. Lent contributes a few brief but pertinent suggestions for such a teacher.

² Dorothy Munz Molyneaux, "Environmental Factors Differentiating Children of Advanced Speech Development from those with Retarded Speech," Ph.D. thesis, Stanford University, 1949.

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Stuttering is a disturbance in the rhythm of speech. It may manifest itself in the repetition of sounds, words or phrases, a blockage of speech during which the child can say nothing or in hesitant speech. This type stuttering is usually termed "primary" by teachers of speech correction. When the child comes to regard himself as a stutterer and when his stuttering is accompanied by facial contortions, muscular rigidity or other physical mannerisms, he is usually termed a "secondary stutterer."

Recent research concerning stuttering has revealed that approximately 1 percent of school children stutter. Of these, 4 out of 5 are boys. These studies further show that stuttering can occur at any level of intelligence; that stuttering increases with the expectation of stuttering, and that the pattern of stuttering varies from person to person as well as within the same individual from time to time and from situation to situation.

In working with the primary stutterer, the child who is not aware that his speech is different, no direct speech training is recommended. The classroom teacher can assist the parents in developing and carrying out a program designed to keep the child in optimum physical and mental health.

The teacher will find other members of the pupil personnel team available for assistance in this work. The school nurse-teacher can assist the family to work out the proper routine of exercise, rest and diet best suited to the individual child. The school social worker, school psychologist, and guidance counselor can help the family analyze and eliminate irritating factors in the home situation that may be contributing to the child's tension.

It is important that all who are concerned with the primary stutterer react without anxiety to his nonfluencies, ignoring his speech interruptions, in an effort not to make the child unduly aware of anything abnormal about his speech. The primary stutterer who has not been made speech-conscious and has developed no fear of speaking situations has a good chance of overcoming his handicap.

If the stutterer has developed secondary symptoms, the classroom teacher can play a more active role in assisting him. She will want to refer him to the guidance counselor and the school nurse-teacher to insure maximum health.

It is particularly important that the teacher accept the child's stut-

tering casually and unemotionally. After establishing good rapport with the child, the teacher can discuss his speech difficulties with him and encourage him to face his problem.

Frequently giving him nonspeaking jobs that he can do well will improve his feeling of personal worth. Let him mount the visual aids, be book monitor and distribute the paper and supplies. When he does this well, let him know it. Praise him to boost his ego.

Provisions should be made in planning lessons to provide the stutterer with successful speaking experiences. If he is willing to participate in oral work, provide him with opportunities to do so. Have him take part in unison speaking. If poetry with strong rhythms is used for choral speaking, the child may not only develop a feeling of confidence but also transfer some of those rhythmic techniques to his own speech.

Talking "through" puppets will often promote fluency. Assign the stutterer roles in simple dramatizations in which he can assume the speech of the character being portrayed. Encourage the child to give brief reports requiring blackboard work in subjects in which he feels proficient. Try to avoid the use of competitive speaking situations in any classroom containing children who stutter. Since there are times when the stutterer is able to speak fluently, the teacher can keep a record of those situations and utilize them in planning to provide further successful speaking experiences.

The experience of successful speaking can be extended to the oral reading period. Assign a good reader and fluent speaker to read aloud with the stutterer to help him establish confidence in his speaking ability.

There will be days when the stutterer seems to have more difficulty than others. On such days it is best to avoid calling on him for oral recitation. Seating him in front of the room may help him to feel the confidence of the teacher and help the teacher to know him better and thus to help him more effectively. It may be relatively unimportant whether the child experiences success in an oral speaking situation or in the performance of a nonspeaking job. However, it is imperative that he leave class with a feeling of success, whenever possible.

Confronted with a child who has a definite handicap of stuttering, the teacher should refer such a child to a speech clinic, through the principal, wherever such clinics are available. In those areas where no speech services are available, stutterers may be given help at a summer speech clinic.

45. Teaching Aphasic Children *

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Increasing attention has been directed toward children with problems of aphasia in recent years. The following article discusses the definition and types of aphasia and the teaching procedures used by the Central Institute for the Deaf in its program for aphasic children.

At Central Institute for the Deaf there has been a program for the diagnostic assessment and teaching of aphasic children for over 30 years. The primary feature of the program has been the *teaching of aphasic children*.

This article will discuss what we at Central Institute mean by aphasia in children, what we find to be characteristic of the children we have classified as aphasic, and some of the basic principles of the procedures we have used in teaching aphasic children. The discussion will be confined to children who have little or no ability to use or comprehend language. While it is true that many of the less severe problems in reading, writing, speech and language encountered in regular schools may be properly classified as mild forms of aphasia, such problems will be excluded from this discussion.

Definition

Until the last 10-15 years most writings on aphasia dealt with aphasia in adults, i.e. the losses in speech and language which follow stroke, cerebral hemorrhage, cerebral thrombosis, or severe head injury. The

* Reprinted and edited from *Education*, 79: 413-418, March 1959, with the permission of Frank R. Kleffner and *Education*.

definition of aphasia should not be confined to "losses" of ability in language for there are among children certain failures in the development of language which can be classified as aphasia. The condition of aphasia may be defined as *a defect in the ability to use or to comprehend language which is the result of a deficit in the central nervous system rather than the result of hearing loss, muscular paralysis, mental retardation, or severe emotional disturbance*. The problem of differential diagnosis frequently is quite complex for defects of hearing, muscular control, mentality, and emotional disturbances may accompany aphasia in various degrees and combinations.

Although aphasia was defined above as resulting from a deficit in the central nervous system, evidence of a pathological condition in the central nervous system other than that gained through assessment of the child's language, hearing and intelligence, is not essential to our classification of a child as aphasic. We base our classification primarily upon the discrepancy between the child's development of language and his level of hearing and intelligence.

In one study (1)¹ about half of the children we had classified as aphasic presented essentially negative case histories from the standpoint of etiology, neurologic signs, and EEG records. Among the children we have classified as aphasic, those with neurologic signs of central nervous system pathology, those with acquired aphasia (3) i.e. losses of speech and language previously developing normally, and those with negative case histories all have essentially the same difficulties in learning speech and language and all present similar symptoms with respect to the discrepancy between the child's development of language and his level of hearing and intelligence. The failure to develop language in the presence of adequate hearing, mentality, and emotional integrity is, in our opinion, sufficient indication of central pathology to warrant the classification of aphasia.

Frequently aphasic children are described as being "brain-injured" or the terms aphasic and "brain-injured" are used synonymously. This leads to confusion. The term aphasia refers to a specific kind of deficit in language ability. The term "brain-injured" is very general and may include individuals with problems ranging from severe cerebral palsy to abnormal EEG patterns without other obvious defects. Also, the term

¹ Numbers in parentheses refer to items in the list of references at the end of the article.

"brain-injured" connotes general intellectual defect which by definition is excluded from the classification of aphasia.

Some authors, particularly Mykelbust (5, 6) have listed a number of non-language problems as characteristic of the aphasic child. Among these non-language characteristics are: failure to grasp the true meaning of surroundings and experience, failure to differentiate parents from other adults, distractibility, hyperactivity, disinhibition, perseveration, emotional flatness, and social detachment. While some of the above problems may exist in varying degrees in some cases, we do not consider such problems as *characteristic* of the children we have classified as aphasic. We recognize that the aphasic child frequently presents erratic or deviant behavior in addition to his lack of language, but we feel that such behavior problems result mainly from the confusion and frustration of his and his parents' reactions to the handicap. It is our impression that most of the aphasic children enrolled in the Central Institute teaching programs are relatively normal in all respects except for their inability to communicate through language.

Types of Aphasia

Aphasia in children falls into two major categories—expressive or motor aphasia and receptive or sensory aphasia. *Expressive aphasia* is characterized by:

1. Lack of expressive speech and language
2. Adequate understanding of speech and language
3. Limited one or two syllable patterns of vocalization
4. Partial or complete inability to imitate tongue, lip, and jaw actions, sounds or words
5. Absence of muscular paralysis
6. Adequate intelligence for speech

The expressive aphasic child can understand what is said to him but he cannot reproduce the patterns and sequences of sounds. He knows the words he wants to say but he cannot negotiate them as motor speech sequences even though he has apparently normal musculature. Usually a limited pattern of one or two syllables is repeated whenever the child attempts verbal communication. Vocal inflections vary appropriately with what the child is trying to express. The expressive

aphasic child relies on pulling, pointing, and gesturing for expressive communication.

Receptive aphasia is characterized by:

1. Lack of understanding of speech
2. Lack of expressive speech
3. Discrepancy between the ability to hear and the understanding of spoken language
4. Discrepancy between intelligence and the understanding of spoken language

Many receptive aphasic children may be mistakenly thought to be deaf for they do not respond to speech and often ignore sound. It has been our experience that the receptive aphasic child learns poorly if at all when taught as if he were deaf. The parents of receptive aphasic children may think their child is deaf, or they may be confused because the child seems to "hear at one moment and not the next." Most receptive aphasic children respond to sound inconsistently and thus are difficult to test for hearing. Some however give ample evidence of having hearing within the normal range. The receptive aphasic child may have any degree of hearing loss in addition to the aphasia. Many of the children we have classified as receptive aphasic have moderate losses of hearing plus aphasia. When an aphasic child has a severe hearing loss the presence of aphasia may not become apparent until the child fails to learn when taught as deaf or hard of hearing.

Intellectually the receptive aphasic child may range from retarded to superior. On the basis of non verbal intelligence test scores, the children we classify as receptive aphasic, with very few exceptions, are above average in intelligence and many are superior. At levels of intelligence below dull normal, the classification of aphasia becomes, by definition, inappropriate. When a child presents the combined handicap of moderate hearing loss and moderate mental deficit he may well exhibit the characteristics of receptive aphasia but to classify such a child as aphasic reduces the specificity and meaning of the term.

The characteristics listed above for expressive and receptive aphasia describe *conditions*, not individual children. Each individual child possesses those characteristics in varying degrees and combinations, frequently complicated or obscured by behavior. The diagnostic classification of some children can be made only after observing the child's

response to teaching. All diagnostic classifications are subject to verification and revision during and after teaching.

Teaching Procedures

The objective in the program for aphasic children at Central Institute for the Deaf is to prepare the children for entrance into regular schools as near the appropriate age and grade level as possible. Following are some of the basic features or principles of the procedures we use for teaching the children we have classified as aphasic. The principles as stated apply to the teaching of both expressive and receptive aphasics.

I. *We feel that the basic problem of the children we classify as aphasic is a deficit in speech and language.* Our work with each aphasic child begins as directly with the teaching of speech and language as that child's behavior will allow. From the very beginning, the teaching of speech and language is the base and core of the entire program for aphasic children and the most significant dimension in the final evaluation of the success of our work with each aphasic child is the extent to which he can communicate through speech and language.

II. *Our procedure is analytical.* The methods employed always proceed from the simple to the complex. The teaching of speech and language begins with the units of sounds and letters. The child is taught to produce individual speech sounds. Each sound is associated with its written letter symbols. Once the child has gained the ability to produce the sounds of the language from the written form, the basic tool has been established for use throughout the remainder of our work with the child.

III. *There is systematic sensory and motor experience through the four specific skills of reading, writing, speaking and understanding speech.* Visual experience is provided through reading written language and carefully self-monitored writing. Motor and kinesthetic experience is provided through the requirement for carefully produced and accurately self-monitored articulation of all phonetic elements. Auditory experience is provided through practice in differentiating and identifying words and language through hearing alone and through accurate self-monitoring in speech. Each of the visual, auditory, motor and kinesthetic experiences mentioned above is developed *separately* and associated with the others through systematically structured drill and experience.

IV. *Oral expression is used as the starting or base point in building language.* The child is first taught to produce individual sounds from the written form. He is then taught to produce sequences of sounds which make up words. The child is not expected to recognize and understand any words through reading, lipreading or hearing until he has produced the words orally himself.

The basic sequence of teaching new vocabulary or language is as follows:

1. The new language is presented to the child in written form.
2. The child reads it aloud in carefully self-monitored speech.
3. The meaning of the new unit of language is demonstrated in context through structured lessons.
4. The child is required to use and reproduce the new language in oral and written form in the same context as it was presented in the structured lesson.
5. Situations are created in which the child must use the new language appropriately in more spontaneous, less structured contexts.

Other writers (5, 6) have suggested that for the receptive aphasic, emphasis should be given to receptive language (or comprehension) and that when receptive language is established, expressive language will naturally follow. We have found that for the receptive aphasic, comprehension develops more completely when there is specific attention given to expression. Also we have found for the children we have classified as receptive aphasic, that expressive ability does not "naturally" follow the development of comprehension. An essential point concerning the emphasis on oral expression is that when the child is expressing verbal symbols orally, he is required to monitor his expression carefully. While receptive auditory activity may be primarily sensory, carefully self-monitored verbal expression can result only from an integration of both sensory and motor capacities, thus providing receptive as well as expressive experience.

V. *We use a variety of visual cues and devices to aid the child in his memory for and learning of important principles and relationships.* Cursive script is used in order to emphasize visually the continuity and grouping of letters and sounds into word units and at the same time to emphasize the individuality of each word unit.

Color also provides important visual information. During the

child's beginning drills and words, two colors are alternated for each phonetic change. The child soon learns to tell at a glance the number of sounds and the points of phonetic change in the word by observing the alternating colors. This information is particularly important since many sounds are spelled with two or three letters.

Later, particular language forms are emphasized by the use of contrasting colors within sentences.

The five principles discussed above represent the most basic features of the procedures which have been developed and used at the Central Institute for the teaching of speech and language to aphasic children. The procedures themselves are organized into a highly structured and systematic progression through definite levels of ever increasing linguistic complexity.

Prognosis

The results of more than 30 years of teaching aphasic children at the Institute leads us to feel that, in general, the prognosis for aphasic children is good. The objective of preparing these children for entrance into regular schools as near their own age range as possible has been accomplished to a large extent. There are, of course, those for whom this objective has not been accomplished. Most of those for whom the objective was not accomplished were children whose problems were complicated by deficiencies of intelligence or hearing of sufficient magnitude that regular school placement would have been inappropriate even without aphasia. On the basis of our past experience, it appears that the aphasic child with normal intellectual potential who enters our full-time program between the ages of 4 and 6 has a good chance of entering a regular school near his own age group by age 10. The children dismissed from the full-time classes between 1945 and 1955 on whom test scores were available (4) had an average age at dismissal of 10.5 years and an average grade equivalent of 3.6 (on standardized school achievement tests). Prognosis in any given case will be limited by:

1. Limitation in mental ability
2. Hearing losses
3. Age beyond 5 years of beginning of education
4. Emotional instability
5. Inadequate home situations or parent cooperation

Finally, our experience has shown that the children we have classified as expressive aphasic have a poorer prognosis as a group than those we have classified as receptive aphasic. Intelligence seems to be the major factor in this poorer prognosis for the expressive aphasic group for a large proportion of that group have IQ scores in the dull-normal or lower range of intelligence.

Conclusion

In closing one important point should be made regarding the education of aphasic children. While we believe that the prognosis for aphasic children is good, we base that belief upon the experience accumulated in the program at Central Institute. In broader perspective, the prognosis for aphasic children is in reality, poor. Not because appropriate remedial measures are lacking but because the number and availability of appropriate educational programs for aphasic children is extremely limited. Public education in the U. S., with the exception of perhaps half-a-dozen communities provides nothing for the aphasic child. Even the mentally retarded, grossly unprovided for through public education, are incomparably better provided for than are the aphasic.

Although the aphasic child has the potential for educated, useful citizenship, unfortunately at the present time this potential can be realized only by a few.

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The Child with a Social-Emotional Handicap

Today there is increasing awareness of the problems of socially and emotionally handicapped children, with a corresponding interest in early discovery and prevention of these difficulties and in planning school programs to aid children handicapped in these areas.

One of the major aims of the schools is to develop well-integrated and socially competent citizens. Thus, when social-emotional difficulties arise, the school is frequently called upon to cooperate in programs of prevention and rehabilitation. Frequently the school is the first, and sometimes it is the only, professional agency to reach children who are socially or emotionally disturbed. School personnel therefore occupy an important position with respect to these children.

There is no simple definition of social and emotional deviation. In general, socially and emotionally handicapped children are those who have unusual difficulty in maintaining satisfactory interpersonal relationships. Included within these two general groups would be all those children who are unable to express their feelings and needs without creating serious difficulties for themselves or others. Thus this chapter contains readings that discuss the child who expresses his difficulties by "acting out" in aggressive ways as well as the withdrawn child, who expresses his maladjustment by retreating from interpersonal contacts.

The teacher who wishes to work with children who are emotionally disturbed should have a number of professional competencies and personal attributes. In a recent Office of Education study,¹ in which supe-

¹ "Teachers of Children Who Are Socially and Emotionally Maladjusted,"

rior teachers of such children were polled, the following were a few of the conclusions reached: (1) the teacher should have an understanding of child growth and development and of the genesis of emotional disturbances; (2) the teacher should have an understanding of learning problems; (3) the teacher should have an understanding of social and cultural factors; (4) the teacher should have a knowledge of agencies which work with disturbed youngsters in her community; (5) the teacher should know herself and what her limits are; (6) the teacher should have skill in working with parents without becoming too personally involved.

The difficulties of the children discussed in this chapter are extremely varied. Problems range from those that can be alleviated by relatively simple adaptations in the regular classroom to those that require extensive residential care or hospitalization. Some cases are complicated by the fact that the child has already reached the juvenile court and has been defined as a delinquent. Work with seriously maladjusted children requires cooperation from many community agencies, including the teacher, the doctor, the lawyer, the policeman, the clergyman, and the social worker.

The first article in the chapter discusses the role of the school in prevention and treatment. If disturbed children are to be served by the school, however, they must first be identified—the earlier the better. Bower's article concerns itself with this problem. Once identified, how can the disturbed children who come to school be helped? Harper and Wright discuss this question in terms of the interpersonal relationships of the child and teacher. Howe discusses a method for handling the disturbed child in the regular school—the use of part-time special classes.

Teachers and school psychologists are often asked to cooperate with child psychiatrists as part of a mental-hygiene team in helping a certain youngster back to a more stable way of life. Graver's article discusses the school's role in "Facilitating the Results of Therapy."

Bold headlines keep the American public continually aware of its juvenile delinquency problem. Kvaraceus, well known for his work with socially handicapped youth, discusses what the school and the community can do to prevent delinquency. Havighurst points out that many youth who are hostile toward society and school are also slow learners and thus require an adapted curriculum. Wattenberg's "Police-Teacher Amity"

U.S. Office of Education Bulletin No. 11, 1957, 1-5, prepared by Romaine Mackie, William C. Kvaraceus, and Harold Williams.

calls the readers' attention to the fact that teachers are often asked to cooperate with law-enforcement agencies in helping disturbed children or in protecting other children under their care. Fritz Redl, noted for his work with delinquent youth both in Detroit and at the National Institute for Mental Health in Bethesda, Maryland, rounds out this chapter with a discussion of an often neglected area, "Research Needs in the Delinquency Field."

46. Emotionally Insecure and Disturbed Children *

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The task of assisting disturbed and insecure children to attain a satisfactory level of adjustment is today recognized as a responsibility of school personnel. Too often, however, not enough time is devoted to the early detection and prevention of emotional disturbances among children. What role can the school play in the prevention of such problems? What knowledge should the teacher have regarding them? What are some effective methods of caring for socially and emotionally handicapped children within the structure of the school? What special provisions exist for the severely disturbed child? Darrel J. Mase presents a general introduction to this area of school responsibility.

Aren't all of us, occasionally, if not frequently, emotionally insecure and disturbed? However, do we like to be judged as such? When is it desirable or necessary to give such labels to children in our classrooms? Let us remember these are relative terms and have meaning

* Reprinted and edited from *Childhood Education*, 32: 218-220, January 1956, with the permission of the Association of Childhood Education International, 1200 Fifteenth St., N.W., Washington, D.C. and Darrel J. Mase.

only as used by one individual and as applied to another. These terms are generally reserved for the person whose behavior is not acceptable in a particular environment as judged by the individual using the terms. When the behavior of the child does not interfere with the lives of others, we say he is socially and emotionally well-adjusted. This same behavior pattern may not be acceptable in another social environment. The social mores which may contribute to the development of an emotionally insecure and disturbed child must be understood. All knowledges concerning growth and developmental patterns of children relate to this topic.

Space would not permit us to list the myriad possibilities of causative factors and their possible combinations which would contribute to disturbances in children. Consider a few of the many functions of the individual which may affect the behavior patterns of the child: vision, hearing, muscular coordination, intelligence, physical health, academic achievement, sexual adjustment, attitudes toward family and loved ones, eating and sleeping habits. Consider the basic needs for belonging, achievement, economic security, love and affection, freedom from guilt, sharing, understanding and knowledge, freedom from fear. Recognize the difficulty all of us have in the materialistic world in which we live to satisfy these basic needs. The satisfaction of these basic needs becomes even more difficult as the child lacks skill or understanding with any of the previously mentioned functions. ✓

Seldom will a child go through four years of school life without a cold or an upset stomach. Neither can we expect children to go through a comparable period without displaying behavior disorders. Our first responsibility is to keep a sense of proportion and relativity in considering any complaints regarding emotional insecurity and disturbances in children. Prevention rather than correction should be the maxim in the classroom. However, too much of the time of teachers and specialists must be spent with the severely disturbed with the result that insufficient attention is given to *early detection* and prevention of other severe disturbances.

The classroom teacher should be familiar with symptoms of disturbances and should apply good mental hygiene principles as early as possible. Like tuberculosis, emotional insecurity and disturbances can be treated so much more effectively and with so much less specialized help in the early stages. The teacher should approach the problem not

from the standpoint of the behavior but rather as a searching for the causes of the behavior. What will appear to be the cause will probably not be the cause, and there will no doubt be multiple factors. The specialist never says, "This is the cause." Rather, after all the case finding, examinations, and evaluations, he says, "These would appear to be the causes. We shall treat the subject as though these are the causes but shall continue to study and thus may find additional contributing factors." The teacher should follow this procedure, for when a cause is assigned we fail to look and if we do not look we will fail to see.

The teacher must remember in relating to the child that even though we cannot accept the behavior of the child we must continue to accept the child. Accepting the child gives us some place to begin in order to go some place. We must learn to think as the child thinks; to see the world of the child as he sees himself in his environment. If we can do this, when we get his story we will see justice to his logic.

Children have many, many questions. They don't always want answers as much as they want someone who can communicate with them. This implies a quiet, understanding listener. They want assurances that the world they are growing up in is a safe and good place to live. They don't want you to tell them not to feel as they feel. This may only estrange us from them. If we disregard the true feelings of our children they may disregard us. Feelings need always to come out. Actions (behavior patterns) often need to be held back. We must not confuse the two. Feelings are facts but need not necessarily be acts.

How shall the classroom teacher meet a behavior problem? Let us consider the following procedures:

1. Make an objective statement of the problem. (He steals.)
2. Record all the facts which can be assembled which relate to the problem. (What, where, when does he steal; what does he do with what he steals; family history and reactions to this stealing.)
3. Decide upon a tentative cause or causes for this behavior. (Does he have as much spending money as others; does he steal from lunch boxes; perhaps he is hungry.)
4. Evaluate this hypothesis. (Visit home, check health records.)
5. Accept or discard this tentative cause and continue to seek others.

The teacher will often find that the emotional insecurity and disturbance in the child is so involved or has been present so long that assistance will be needed. He should discuss his observations and con-

cerns with his immediate superior so as to follow the procedure for referrals as established in the particular school in which he is employed. Procedures will vary also depending upon the specialists who are available to assist with evaluation, diagnosis, and perhaps treatment. Beyond the work of the classroom teacher in preventing and correcting social maladjustments in children, we will find various degrees of the following programs.

A counselor may be employed by the school to assist the teacher with what to do and what not to do. The counselor may work with the children in helping them to solve their problems. He may be responsible for collecting the data known to the school and to the parents in making the referral to other specialists. His ability to accept responsibilities will depend upon his training. This plan works quite effectively especially in our less heavily populated centers where the schools cannot have more highly specialized personnel on their staffs.

Many schools now provide trained personnel to assist the classroom teacher in preventing and correcting severe disturbances in children. Such personnel may be school psychologists, psychiatrists, pediatricians, dentists, visiting teachers, social workers. Within the school there may be divisions as child guidance clinics, psychological bureaus, pupil personnel departments where personnel mentioned previously and others will be working cooperatively in providing data regarding children and in assisting those who need specialized help. Still other schools may relate to community and state diagnostic and treatment centers and to individuals in private practice. It is important that these specialized personnel, in whatever their setting, see the problem from the eyes of the teacher. The child who disturbs a teacher with a large class by constant annoyances may be found to have no fundamental psychological or psychiatric problems. However, specialists should be able to offer the teacher constructive suggestions for ways and means to help the child adjust to the group, whatever the basis of the behavior.

Special classes are another means of treating those with severe disturbances. However, they often have become a "dumping ground" for "bad boys and girls" and the reason for the behavior is not treated. If children with severe disturbances can be properly grouped the special class provides a means for determining the best procedures to follow. Such an environment provides opportunities for study and further evaluation as well as the application of various psychotherapies. Where-

ever possible children should be maintained with their regular social age group and taken into such special classes for periods of evaluation and treatment.

Special schools are maintained in various environments for children and youth with severe emotional disturbances. A few public school systems in large cities have established such centers. Most states have residential schools for those with the most severe social maladjustments where it is necessary to remove these children from the home and foster home placement is not indicated. Whether such schools are maintained by the city, county, or state, they are generally for teen-age youth. Facilities for careful study, evaluation, and treatment of children under 12 years of age with severe emotional disturbances are greatly needed.

Basic principles for the establishment of programs for emotionally insecure and disturbed children should include the following:

1. Early detection and prevention should be the goal of all public school programs.
2. Good mental health programs are good prevention programs.
3. Children will be emotionally insecure and disturbed; the degree of such disturbance should be our concern.
4. The ability to communicate with children is basic to being able to help them.
5. Emotionally disturbed children deserve specialized programs in order to permit them to develop healthy personalities.
6. Specialized personnel must be available to assist teachers and parents.
7. Wherever possible, the program for emotionally disturbed children should be a part of, rather than apart from, the general educational program.
8. Causes for unacceptable behavior patterns must be treated rather than the behavior.
9. Society's treatment of children is generally a contributing factor to severe emotional disturbances.

47. A Process for Identifying Disturbed Children *

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The previous article suggested that teachers should be familiar with symptoms of emotional disturbance. The present selection is the report of a detailed research study of the ability of the classroom teacher to perceive these disturbing symptoms in children and her ability to make appropriate referrals for remedial measures on the basis of this knowledge.

The search for a kind of psychological penicillin by which mental illness and its associated disabilities could be prevented has been particularly intriguing. Such a search often leads to the discovery or rediscovery that the public school is an institution whose services are available to all the children in the community, which employs professional personnel trained in the understanding of personality development in children, and which can and often does establish ancillary services to help teachers and parents. It is not surprising, then, for agencies dealing with problems created by poor mental health to look to the school as an avenue for reducing the rate of psychological morbidity in our population.

Often the specific request made of the school is: "Identify and help emotionally disturbed children early." The possible effectiveness of early identification in preventing unwholesome personality development rests on at least two assumptions which need scientific clarification. The first is that emotional disturbance is the result of a progressively developing condition visible and susceptible to evaluation early in a person's life. Its corollary is that the school, as now constituted, can recognize this

* Reprinted from *Children*, 4: 143-147, July 1957, with the permission of Eli M. Bower.

condition economically and within the present framework of daily activities.

The second assumption is that the child who is identified early in life as emotionally disturbed can be helped with less trouble to himself and the community than would be the case at a later period in his life. Although the assumption that the earlier the identification the easier the cure seems both logically and psychologically sound, it is still a proposition based on faith and conviction.

Acknowledging these gaps in knowledge, and in spite of them, the California State Department of Education initiated a study concerned with early identification of emotionally disturbed children. Specifically, the study was aimed at discovering to what extent a teacher-centered procedure might be employed for identifying disturbed children in a class and to what extent information ordinarily obtained by the classroom teacher about children might be used for this purpose. "Identification" was conceived of as a process rather than an act—a process which might favorably affect the teacher's perception of behavior and help point the way to remedial measures. The study plan was based on the assumption that to be effective this process had to be carried out by the teacher as the person in the school most closely involved with the children, the one who had more day-to-day contacts with each child than anyone else on the school staff, and the one who was in the most advantageous position to observe the children's relationships and behavioral patterns.

Before involving the teacher in the study, the study staff asked the psychiatrist, psychologist, or counselor in each participating school to identify some children who were being seen or who had been seen by the clinical staff and who in their opinion were "emotionally disturbed." Classes in which one or more of these children were enrolled were then selected for participation in the study without revealing to the teacher the criterion for selection.

The purpose of the study, as explained to the teachers, was to study all the children in the class. Some of the teachers knew that some of the children in their classes had been seen by the school psychologist or clinic; others did not. In any case, the only knowledge the study staff wished to keep from the teacher was the reason for the selection of her class. This, the staff felt, would be necessary to prevent the research itself from biasing the teacher's perception of her children.

Several conditions were agreed upon by the study staff and the schools in regard to the information the teachers would be asked to collect. These were:

1. It could be obtained by teachers in their everyday, routine interaction with the class.
2. Gathering and recording it would not involve a disproportionate amount of teacher time.
3. The type of data expected could be so defined as to have the same operational meaning to each teacher.
4. It would tap as many sources as economically possible for indication of the child's behavior.
5. The information-gathering procedure would allow the part of "suspectician" to fit harmoniously and acceptably into the teacher's perception of her role and responsibilities.

The categories of information finally selected for the teachers to collect about each child were:

1. Individual scores from group intelligence test.
2. Individual scores from group achievement test in arithmetic and reading.
3. Individual responses to a group administered personality inventory, "Thinking About Yourself."¹
4. Results of a sociogram, "The Class Play."²
5. Age-grade relationship.
6. Rate of absence.
7. Rating of socioeconomic index based on father's occupation.
8. Teacher's rating of the child's physical status.
9. Teacher's rating of the child's emotional status.

Information in all these categories was collected on approximately 4,400 children by approximately 200 teachers of fourth, fifth, and sixth grades in about 75 school districts. Among the children were 207 clinically designated emotionally disturbed children—162 boys, 45 girls.

In the instructions to the clinicians no sex ratio for selection was indicated. It is interesting to note that the resultant random selection resulted in a ratio of emotionally disturbed boys and girls very close to the ratio of referrals.

¹ California State Department of Education, *Thinking about Yourself* (Sacramento, 1957).

² California State Department of Education, *The Class Play* (Sacramento, 1957).

The information was collected by each teacher for all the children in her class on a special form devised by the State department of education and returned to the department for processing.

The first analysis of the data was to determine to what extent, if any, this information could help a teacher to differentiate the emotionally disturbed child from the rest of the children in the class, how many emotionally disturbed children there were in the school population, how they were perceived by other children, and how they perceived themselves. It was proposed that as part of this study the data which significantly differentiated the emotionally disturbed child from the others be analyzed to discover the degree of differentiation. Then each item of the differentiating data would be weighted in proportion to the size of its ability to differentiate. For example, if *The Class Play* technique and group I. Q. scores both turned out to be significant but one turned out to be twice as discriminating as the other, they would be weighted accordingly. After the weights were assigned, the data and the weights would be tried out by a variety of teachers and classes to learn what corrections, additions, or subtractions needed to be made in the process.

The Findings

Following is a brief summary of the aspects of the information collected by each teacher which differentiate the emotionally disturbed children (those selected by the clinicians) from others of their classroom. (In all these statements the word "significantly" refers to the 0.01 level of confidence, meaning that there would be one chance in a hundred that a difference as large as the obtained difference would occur by chance. "They" refers to the selected emotionally disturbed group.)

1. The emotionally disturbed children scored significantly lower on group I. Q. tests. On psychological tests given individually, they approached the mean of the group.

2. They scored significantly lower on reading and arithmetic achievement tests. The differences were greater and more significant on arithmetic achievement. The higher the school grade, the greater the differences between the emotionally disturbed child and the rest of the class.

3. They differed significantly from the other children in the class

in their self-perception as revealed in some of the items in the Personality Inventory. Emotionally disturbed boys exhibited greater dissatisfaction with self and their school behavior than the other boys. Emotionally disturbed girls showed less dissatisfaction with self than the rest of the girls in the class.

4. On the sociogram, "The Class Play," the other children in the class tended to select emotionally disturbed children for hostile, inadequate, or negative roles and failed to select them for the positive, good roles. Hostile children particularly were selected for roles consistent with their behavior.

TABLE 1

Teacher Rating of Each Child in Response to: How Would You Rate This Child's Adjustment with Respect to His Present Group?

RATING	MALES		FEMALES		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
TOTAL GROUP						
Among the best	673	23.0	893	33.5	1,566	28.0
Among the average	1,368	46.9	1,314	49.3	2,682	48.0
Among the poorest	879	30.1	460	17.2	1,339	24.0
TOTAL	2,920	52.3	2,667	47.7	5,587	100.0
EMOTIONALLY DISTURBED GROUP						
Among the best	3	1.9	2	4.5	5	2.4
Among the average	17	10.4	5	11.4	22	10.7
Among the poorest	142	87.7	37	84.1	179	86.9
TOTAL	162	78.6	44	21.4	206	100.0

5. Emotionally disturbed children came from homes which were not significantly different in socioeconomic level from those of other children generally. (This fact was revealed by a chi-square test comparing the distribution of the occupations of the fathers of the emotionally disturbed children and the occupations of the fathers of the rest of the children in the class.)

6. Altogether 87 percent of the clinically known emotionally disturbed children were rated by their classroom teachers as among the most poorly adjusted children in the class. (Table 1.) Nearly 61 percent

of these were described by the teachers as being overly aggressive or defiant often or most of the time (Table 2), while 25 percent were designated as being overly withdrawn or timid quite often or most of the time (Table 3). As perceived by teachers, 4.4 percent of all the children in the class were overly aggressive or defiant most of the time (Table 2), while 6.1 percent were overly withdrawn or timid most of the time (Table 3).

TABLE 2

Teacher Rating of Each Child in Response to:
Is This Child Overly Aggressive or Defiant?

RATING	MALES		FEMALES		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
TOTAL GROUP						
Seldom or never	1,579	54.0	1,945	73.0	3,524	63.0
Not very often	709	24.2	404	15.1	1,113	19.9
Quite often	469	16.0	239	9.0	708	12.7
Most of the time	169	5.8	78	2.9	247	4.4
TOTAL	2,926	52.3	2,666	47.7	5,592	100.0
EMOTIONALLY DISTURBED GROUP						
Seldom or never	31	19.1	17	37.8	48	23.2
Not very often	27	16.7	6	13.3	33	15.9
Quite often	57	35.2	15	33.3	72	34.8
Most of the time	47	29.0	7	15.6	54	26.1
TOTAL	162	78.2	45	21.8	207	100.0

Some of the implications of the study might have been expected. Others may be more surprising. Here are a few:

1. Children's judgments of other children's personality are surprisingly accurate and predictive.

2. Teachers' judgments of emotional disturbance are very much like the judgment of clinicians.

3. Teachers in this study selected a greater number of children as being overly withdrawn or timid most of the time than as overly aggressive or defiant most of the time.

4. At least three children in each average classroom can be regraded as having emotional problems of sufficient strength to warrant the appellation "emotionally disturbed child."

5. The differences between emotionally disturbed children and the others seem to increase with each grade level. In essence, the rich get richer while the poor get poorer.

TABLE 3
Teacher Rating of Each Child in Response to:
Is This Child Overly Withdrawn or Timid?

RATING	MALES		FEMALES		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
TOTAL GROUP						
Seldom or never	1,700	58.1	1,367	51.2	3,067	54.8
Not very often	732	25.0	699	26.2	1,431	25.6
Quite often	351	12.0	406	15.2	757	13.5
Most of the time	144	4.9	197	7.4	341	6.1
TOTAL	2,927	52.3	2,669	47.7	5,596	100.0
EMOTIONALLY DISTURBED GROUP						
Seldom or never	87	53.7	15	33.3	102	49.3
Not very often	40	24.7	14	31.1	54	26.1
Quite often	20	12.3	9	20.0	29	14.0
Most of the time	15	9.3	7	15.6	22	10.6
TOTAL	162	78.3	45	21.7	207	100.0

It should be reemphasized that this study was aimed at securing a "psychological thermometer" about schoolchildren for persons in a favorable position to use such a device, and at nothing more. Like the medicine-chest thermometer which may add little information to the obvious fact that a person has a high temperature, such a psychological thermometer may confirm a suspicion, reject a suspicion, or raise a suspicion. It may provide teachers with a more accurate base than personal supposition for communicating with specialists, as well as a possible gage from which individual change can be assessed. It may provide the teacher with a method for evaluating her own processes. It may also raise pertinent questions in a teacher's mind, particularly when it does not confirm her judgment about a specific child or when it indicates that a formerly unnoticed child might be having difficulties.

For example, a teacher reported that the sociogram, "The Class Play" (a device in which children select roles for themselves and other members of the class for a hypothetical play), did not seem to be a

very reliable method for learning about the children since some of the results in her class did not coincide with her observations. She noted that a child whom she saw as a leader of the class was not chosen as such by the other children. When asked whether both perceptions might not be correct, she answered: "Well, he always seems to be a leader when I'm around." But a few weeks later she reported that the other children did feel differently about the child than she had supposed.

"You know," this teacher observed, "it's interesting really to find out that your idea about a child isn't the only one. I think I see him a little differently now because I am also able to accept how others see him."

One part of "The Class Play" provides for a comparison of the role each child selected for himself and the roles selected for him by his classmates. Thus it serves as a device for studying the reality-testing aspects of a child's personality and for making some inferences about how a child sees himself and how others see him.

A highly intelligent fifth-grade girl who was chosen for many negative and hostile roles by her classmates chose negative roles for herself when asked which parts she thought her classmates would choose her to play and which parts her teacher would ask her to play. But in answer to the question, "Which part would you like to play?" she chose the heroine role. Later this girl told her teacher that she realized how her classmates felt about her but that she felt she was gaining greater understanding of herself, "that she knew what she was up against and was working on it."

A boy received 8 positive and 8 negative choices by the class. His teacher found that his nickname among the children, "Little Nuisance," was an honest reflection of the mixture of affection and irritation his classmates felt in regard to him. The boy saw himself as the class did, choosing himself for an equal number of appropriate positive and negative roles, and accepted the appellation with good grace. Other parts of the data gathered on this child by the teacher led her to a more meaningful understanding of how this child perceived himself and how other children reacted to him.

This process for helping the teacher identify the emotionally disturbed children in her class might be regarded as a kind of action research with two major purposes: (1) to help the teacher understand the relativity of her perception of the children; (2) to provide teachers

with a systematic, meaningful procedure for using available information about children in verifying or rejecting hypotheses about their adjustment status.

As Coladarci³ points out, "the teacher must be an active, continuous inquirer into the validity of his own procedures." This process may very well help the teacher become a more effective inquirer.

It is also possible that this process might be helpful to the teacher-clinical staff relationships.

An emotionally disturbed child whose behavior is erratic or disrupting can and often does induce anxiety and despair in a teacher: Often the relationship of the class and teacher to the emotionally disturbed child is such that no solution but separation of the child from the group is acceptable. When this point is reached, the teacher often seeks the help of the clinician as a "waver of the magic wand"—that is, as a person who can solve the problem quickly either by changing the child's personality or by changing his room. It is sometimes difficult for the teacher to accept the fact that her expectations cannot be met and that she must participate in the slow process of "understanding" the child.

Intellectually the teacher may recognize the limitations of the clinical service; emotionally, however, she may be disappointed that nothing happens and that she is still plagued with the problem. In time, therefore, she may come to feel that the clinical service offers little to help her. The psychologist or guidance worker on the other hand may be so overwhelmed by the numbers and seriousness of problems brought to them that he becomes immersed solely in the clinical nature of his task. As Krugman points out, "Because there is almost never sufficient staff in a school-guidance program to do what needs to be done, the tendency is usually to focus on emergencies or immediately annoying problems. . . . We still have too great a tendency to throw our full armamentarium of personality appraisal methods into efforts to salvage the problem child."⁴

The anxiety induced in a teacher by one or more emotionally disturbed children is often visited upon all the children in the class. As a

³ Arthur Coladarci, "The Relevancy of Educational Psychology," *Educational Leadership*, May 1956, p. 490.

⁴ M. Krugman, "Appraisal and Treatment of Personality Problems in a Guidance Program," in *Education in a Free World* (American Council on Education, 1954), pp. 114-121.

result those children with situational or incipient problems who can be helped by the teacher may be overlooked or overevaluated. However, a teacher who "knows" the children and the class may be more comfortable about seeking help and more aware of her own personal anxieties and biases in appraising children. It may be necessary at times for a teacher to accept the fact that some children are seriously disturbed and need psychiatric treatment. The number and urgency of serious problems may be greatly reduced, however, if the teacher-clinical team can be helped to make the most of the school's potential for preventing personality distortions in children.

48. Dealing with Emotional Problems in the Classroom *

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AND

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When a teacher has located a severely disturbed child she is faced with the task of determining what she can do for him in her classroom. She must be able to answer the question: How can the emotional energies of the child be channeled for learning? Harper and Wright discuss how teachers at a special school for emotionally disturbed children help these children overcome the fears that stand in the way of learning.

The teacher who expects to impart basic skills to the disturbed child will be wise to recognize that satisfaction is always uncertain and often unobtainable. Frequently, on the very day when a long session of

* Reprinted from the *Elementary School Journal*, 63: 316-325, March 1958, with the permission of The University of Chicago Press and the authors.

intensive work has resulted in apparent academic achievement, an incident will make the teacher feel that nothing has been accomplished. The teacher's efforts to teach are thwarted. He may find that his time and energy are consumed just by trying to keep some semblance of order in the classroom. When the disturbed child is in a room with other youngsters who could benefit directly from the teacher's efforts to teach, the teacher's problem is further complicated.

Classroom experience with emotionally disturbed children at the University of Chicago Orthogenic School has pointed up certain considerations that can help the teacher and the child as well. In this area as in others, methods of application will vary with the child and the teacher.

To understand how to help the disturbed child, the teacher may well recall the development of any child's attitudes toward school. If the first problem is to help the child find school a safe and satisfying experience, then the teacher needs to know *why* school may be unsafe and unsatisfying in the eyes of a child. The teacher needs to be able to understand a child, not merely in terms of psychological generalities, but also in terms of his particular experiences. What does he see in school, in the classroom, in learning, or in the teacher that makes it difficult or impossible for him to stay in school or to learn? Only when the teacher can answer this question is he in a position to meet the disturbed child's needs and to lower or sidestep his emotional barriers to learning.

"Alone and afraid in a world I never made"—this phrase may well summarize the disturbed child's view of life. His experience has led him to feel that he has to face the world with only himself, a small and inadequate self, to depend upon. In times of stress the adults he has known have not protected or helped him. Often the reverse has been true: his parents have leaned on him, have used him to try to find stability or satisfaction in their own lives. What has sometimes beckoned as a possible haven has, too often, turned out to be a trap. Even to an adult, the prospect of venturing out on his own can be fraught with anxiety and misgiving. To a disturbed child the prospect can be terrifying.

Unlike secure children, who can enjoy a new adventure, the disturbed youngster takes every step in deep fear. As life becomes more and more difficult, his dread is compounded. While the fear that most people know is a fleeting emotion that strikes occasionally, his fear is

a pervasive and continual agony. It is like the nightmares all of us sometimes have, but his is a nightmare that penetrates most moments of his life. He wakes in the morning in dread of the unknown day. He goes to bed in the evening in terror of the unknown night.

The disturbed child builds and maintains what he feels to be the strongest possible defenses against a world that he sees as unrewarding, inimical, and violent. It becomes a life-and-death matter to him that he never drop his guard. These self-protective efforts to survive sap his emotional and intellectual energies. He is exhausted. Whether his efforts go into an aggressive and belligerent hostility or into maintaining an isolated world of his own into which to withdraw, he has little energy left for the other tasks of life, and certainly very little for a task as demanding as scholastic learning.

What is unsafe and frightening to a child depends on *his* life experiences and, in particular, on *his* view of them. The teacher can learn most about these from the child himself. In our experience the best source of insight into the child's behavior is the emotional impact the child has upon the teacher. The spontaneous emotional reactions that the child arouses in the teacher are vital clues to the child's fears and needs. Understanding of the child is further enriched when the teacher asks himself: "What feelings, what views of life, would prompt me to do what this child is doing?" Needless to say, knowledge of the child's life before he came to class and of the kind of life with which he must contend outside of class also helps the teacher to understand the child. But these become individual matters for each child and teacher. There is no substitute for the teacher's own careful study of the disturbed child with whom he has to deal. Nevertheless, it helps a great deal to know in advance the signs and causes of some of the fears that occur repeatedly. These we shall discuss here.

Children see the teacher as a representative of the adult world. Disturbed children generally find it hard to believe that any adult could really be interested in helping them. For this reason they tend to fear the teacher and to suspect his intentions. They expect that the teacher is out to use them for his own purposes. Rather than run the risk of being overcome, and possibly destroyed, by the selfish demands of a "dangerous" adult, many children go out of their way *not* to please their teachers, even if the cost is to remain ignorant. The teacher may offer verbal assurances that he is not like other adults whom the child has known,

but announcements of good intentions do not convince the child. Experience has taught him that words are cheap and usually unreliable. The hard fact is that the disturbed child fears the teacher. The teacher must deal with this fear if he is to help the child.

The child may be reluctant to enter the classroom if he has failed in school or if the classroom has been the setting of an event that confirmed the child's painful life experience. The classroom will represent potential danger, and he will naturally want to avoid it.

Many disturbed children try to protect themselves, as well as to relieve the physical tensions which constant fear creates in them, by keeping on the move, by reassuring themselves that at least their muscular control of themselves is still working. To them, the classroom represents a confinement which may interfere with their efforts to keep alive. "Trapped" in the classroom, they feel even more vulnerable to the dangers of the unfriendly world. Since their ability to manage their own physical tension is feeble, they fear that, should they allow themselves to become confined to the classroom and the teacher's recess schedule, unmanageable amounts of tension will build up and overwhelm their precarious self-control. These children are often truant from school and run away from home.

Classmates may also be a source of fear. Johnny, a withdrawn, physically immature boy, avoided going to school because, whenever he did go, two bullies in his class badgered him all the way home. Disturbed children may project their own hostile wishes on other children, and, even though no bully threatens them, they avoid school for fear other children will act out their projected wishes. Frequently the disturbed child does such a thorough job of provoking his classmates that his fears of revenge are well founded. If the classroom or the children in it are, or appear to the child to be, inimical, he will do the best he can to avoid the classroom, to get himself thrown out of the classroom, or to be as little in contact as possible while in the classroom.

Some children fear learning itself. This fear may be directed toward two aspects of the learning process: some children fear the taking-in of knowledge, the finding-out part of learning; other children fear to show, or to use, what they have learned. The disturbed child may have a haunting dread that something forbidden or dangerous will be learned. He tries to ease the pain of traumatic life experiences by forgetting. To him, the opportunity to learn may represent the danger of having

to relive a painful experience that he has expended emotional energy to forget. Learning means the peril of having to come to grips with new unknowns which may have dire consequences. For example, when Ted was a little boy, his mother had a furtive but active love affair. Ted, who was present during the trysts, knew his mother's secret. He knew, too, that he had to hide his knowledge. His mother threatened him with desertion and even more dire consequences if he told his father. The experience influenced Ted's attitude toward the finding-out part of learning. Any new knowledge that came his way might be part of the secret he had to forget or, worse, another new secret that he would have to forget too. As a result Ted had considerable difficulty in learning in the first place and in remembering what he had just learned.

The child's fear of the finding-out part of learning may have another base. Many children entertain the magical notion that ignorance relieves a person of responsibility for his behavior. To these children, learning represents the danger that they will have to bear the burden of responsibility and of guilt for what they have done or may wish to do. Since emotional disturbances are characterized by the most aggressive and hostile fantasies, fantasies in which wishes seem the same as actions, learning may be a danger that such a child will go to some lengths to avoid.

To the disturbed child, achievement in using learning can represent the irrevocable loss of infantile pleasures. Since he has already been deeply deprived of many of these pleasures, an achievement which threatens to make his losses final is a danger to be avoided at all costs. In his early life Ronny had been shifted from foster home to foster home. In each home, other children in the family received more attention and concern than he from the important adults. He felt that he would never have the things other children had. Even when these satisfactions became available to him at the Orthogenic School, he continued his infantile behavior and could not learn to read. He still feared that, if he learned and thus grew up, his infantile needs would not be adequately met and the pleasures he was now getting would be lost. Only after time and many demonstrations by the teacher had shown Ronny that he would continue to be able to meet his own needs, however infantile, was the boy free enough from his fears to start to learn to read.

For many children, achievement has a competitive meaning. When the child's feelings about others are steeped in jealousy and hate, to achieve may become equivalent to doing away with envied competitors.

While imaginary murders express the child's unhappiness, they are threatening to him. If to achieve is to try to murder his competitors, the disturbed child must avoid achievement. What he *imagines* he does to his competitors, they may in self-defense *actually* do to him.

Eddie spent much time in fantasies of fights and killings. In every book and every subject he could find something that represented a battle. So much of his energy was spent in imaginary combat that he had no strength left for school tasks. On top of this, school achievement as he saw it might put him in a position really to accomplish what he wished. As a result, though he was very bright, he could not grasp many simple principles which would open the door to wide learning.

Certain experiences are crucial in enabling the disturbed child to remain in school and to learn. Though all these experiences are essential, they vary in priority. The child needs them in the following sequence: safety, basic comfort, pleasures of his own, self-respect, success, and challenge.

Experiences that satisfy each of these needs contribute to a phase of the child's adjustment to the classroom. Unless he feels *safe*, he will be unable to stay in class at all. Unless his needs for *basic comforts*, such as protection from hunger, fatigue, cold, and unmanageable physical tension, are met, he will be unable to stay long. Unless he finds *pleasures of his own* in the classroom, he will have little reason to stay. If, in spite of these, his *self-respect* is not protected, he will eventually need to escape. Only after these primary needs of the child are met by the teacher in the classroom will the child be able to begin traditional schoolwork. Even then, the teacher must plan the work at first so that *success* is almost guaranteed. Otherwise, the child will find schoolwork too unrewarding to discover the pleasures of mastering it and thus to be able to respond to the *challenge* of learning.

To begin with, the teacher must find a way to offer the child the security the child lacks. The teacher has to become someone upon whom the child can depend for safety. Here actions accomplish far more than words: the teacher must be ready to meet the child's needs with the right things at the right time. To do this, the teacher has to manage his own feelings in times of stress, so that he does not require all his emotional energy for himself. Only if he is relatively free from a preoccupation with his own needs will the teacher be able to remain sensitive to the child's needs and to help the child.

Meeting the child's needs begins with protection. This protection

must cope with two sources of danger to the child: danger from his environment and danger from himself. It is easy to see that physical protection is one of the child's basic requirements, but how to assure the child that he will be physically protected is sometimes a problem. Any person as threatened by life as is a disturbed child expects the worst; he feels terribly disappointed and angry toward the world and its occupants. Such feelings emerge in the form of wishes for revenge and murder. In terror of what he may do, the child is frightened and anxious. He must get the feeling from the teacher, not only that he is going to be protected from others and that he does not need to fear their retaliation for his murderous wishes, but that others are going to be protected from him. The child must get the feeling that his emotions are not going to become so unmanageable that no one on earth will be able to help him keep them in check.

When Bob came to the Orthogenic School, he repeatedly struck out at other children and at the teacher. Finally the teacher placed himself physically between Bob and the other children. When this happened, the brunt of Bob's attack fell on the teacher, but, unlike the children, the teacher was able to handle the attack without becoming frightened or losing his temper. He would either step out of the way or firmly hold Bob's arm. Unlike the children, who might have had to retaliate in self-defense, the teacher was able to protect himself while refraining from striking back. At first Bob found it necessary to run from the room after these outbursts. Only when he saw again and again that no one was going to be allowed to hurt him *and* that his teacher was also going to protect his classmates from him was he able to stop fleeing. Only when he saw that his aggressive and, to him, terrifying impulses did not lead to catastrophe in the class was he able to stay in school.

The best protection is one in which the controls appear to the child to come from within himself rather than from someone outside. To achieve this result, it is important that the teacher have confidence in the child. This means recognizing that the child wants to be in control of himself. It also means recognizing another fact: the child wants to be sure that he will be capable of managing his feelings much of the time, even though he, like anyone, may at times feel overwhelmed.

The teacher will do well to plan his day with the child so that, when the to-be-expected moments of stress arise, there is something in the situation which the child, by his own decision, can use to draw away

from trouble. Frequently, desirable alternatives, like candy, games, or crayons, can provide the diversion to relieve the tensions of a bad moment. A stressful moment may be a strategic time to call for recess, the aim being to help the children find constructive and acceptable activities to discharge tension.

There will come a time with most disturbed children when the teacher is called upon to make a show of strength. The teacher may even have to resort to physical force. This does not mean that he must step in swinging, figuratively or literally. Frequently a firm hold on a child's arm will convey the teacher's intention and impart the sense of strength required. The firmness of this gesture can underscore his intention and his ability to maintain safety for the children. The gesture can also demonstrate the teacher's ability to retain his self-control.

Regardless of what is done, it must be supported by the teacher's inner conviction. Action will be ineffective if the teacher himself is uncertain about what he is doing, about whether he is going too far. If the teacher does not have the conviction that what he is doing is for the good of the child, his ambivalence will communicate itself to the class. Then a show of strength, rather than offering the children protection, will frighten them and may even require them to provoke the teacher further in an effort to find out just how strong and hence how safe or dangerous he really is. For example, if the teacher acts largely because he finds the child's defensive efforts irritating, the child, in self-protection and sometimes in retaliation, will be forced to continue and intensify his disturbing behavior.

Sally was a very disturbed girl, who became violently upset and agitated at the slightest sign of departure from a routine. When things did not go exactly as she expected, she responded by running, throwing, biting, and kicking. But, in spite of her violence, because her teacher was sure of what he wanted to do for her, it soon was enough for her to have him hold her hand firmly during moments when things were not as she wanted. Before long, when she *started* feeling upset, she came to him and asked him to hold her hand. She asked for the protection she wanted from her teacher because she herself had seen that she could get it.

One feature of offering protection can be frustrating for a teacher. Even when his strategy is the best possible, situations in which he has to step in and exercise control arise again and again, because the dis-

turbed child needs constant reassurance that he is going to be protected. Only by repeatedly setting up situations which demand the teacher's attention can the child be sure that appropriate protective action will be taken. Again and again the child will express his feelings in actions designed to test the teacher. This may go on for years if the child's needs are intense enough. When this is the case, it is particularly important that the child remain with the same teacher for as long as possible. If testing for protection has to be repeated every semester, or even every year, with a different teacher, the child may never get a chance to become convinced that he will be protected by at least one teacher and hence will be safe in school. On the other hand, if the child is with the same teacher for several years, the teacher has a chance to learn how to protect him and the child has the experience of being protected. Eventually he will feel protected and be able to begin his journey down the road of learning.

Because of staff changes, Denton, a disturbed eight-year-old who was unable to read, had four different teachers in a two-year period. During this time he remained as much of a problem in the classroom as he had been before coming to the school, throwing and breaking things and physically attacking children and teachers. But he learned very little. It was only after Denton had stayed with the fourth teacher for nearly two years that he began to feel safe enough in class to settle down and learn to read.

Another aspect of protection comes into play as a result of the child's deep disappointment in himself and of his efforts to deal with his anger against the world even if he himself gets hurt in the process. He may place himself in a position where he can easily be hurt or may actively hurt himself. If the teacher is to succeed in convincing the child that he wants to protect him, he must be alert and sensitive to these self-destructive possibilities.

Whenever Ronny felt angry, he would play ball or running games with such abandon that he invariably fell or ran into something and hurt himself. The teacher had to be constantly on guard for signs of recklessness in Ronny's play. When they cropped out, he involved Ronny in quieter activities near the teacher until the boy's anger had subsided enough to cease to be a danger to him. After this had happened many times, Ronny began to talk about his feelings, to deal constructively with them, and to learn.

Since words are relatively ineffective with the disturbed child, the

teacher's best chance lies in actions that offer convincing evidence of his good intentions. This does not mean that the teacher should impose himself on the child. Rather the teacher should be available for the child to observe and to call upon when he is ready. Children watch the way the teacher treats other children in the room. From observations made at a safe distance, youngsters draw conclusions as to the kind of person their teacher is. After a child has observed that his teacher protects and satisfies other children like himself and after he has actually felt the teacher maintain control without retaliating vengefully against his outbursts, he will begin to test the teacher's good will in more positive ways. He will tentatively explore the possibility that he, too, might get something good from such a teacher.

Sammy, a severely disturbed boy, began school by doing nothing in class. He seemed to be paying no attention to what was going on, but gradually it became apparent that he was watching the teacher closely if surreptitiously. As the months went by, Sammy watched the teacher more and more openly. Although Sammy avoided the teacher when he came near, Sammy began hovering close by when the teacher worked with another child. After more than a year of careful study of his teacher's conduct with the other children, Sammy felt safe enough to seek out his teacher as a partner in a game of catch. Only after this move did Sammy began to learn from the teacher.

The child's fear of the classroom will be eased if the teacher recognizes that the child's previous classroom experiences may have been painful and if he conveys to the child that his reluctance to stay is logical. But the teacher must add that he wants very much for the child to try to stay with him in class, since that is the only way the child can ever hope to find out for himself that school can be worthwhile. It also helps if the child knows that he will have frequent, and preferably self-chosen, opportunities to move around.

If the teacher is flexible in the materials he uses in the classroom, he can avoid areas which seem to make the child fearful and add to his difficulties in learning. For example, stories about babies can be very painful to a child who feels that his troubles began when he was displaced by a younger sibling. Subtraction can be repugnant to a child who is depressed about, and wishes to forget, how much has been "taken away" from him. Stories about happy families can be agonizing to a child whose home is broken.

One way to help a child who clings to the guilt-avoiding magic of

ignorance is to convey to him that his behavior is not nonsensical or accidental but is actually quite reasonable, given his view of life. This will interfere with the child's efforts to believe that ignorance magically prevents responsibility and will, at the same time, demonstrate to him that the teacher is willing, and thus not afraid, to try to understand his actions and feelings.

Some competition among children is unavoidable, for they will compare themselves with one another. Still the disturbed child's fear of achievement as murderous competition can be eased in several ways. The teacher can refrain from expressing comparisons and from giving marks which invite competition.

The child's fear of losing forever the infantile gratifications he has never had enough of can be relieved if the teacher makes these gratifications available to him, at least in part, in class, and does not maintain the attitude that he should grow up and give up his childish ways as soon as possible. Ted, for example, could read only while sucking a lollipop. Ronny always wanted a candy bar after he finished reading. As the child becomes convinced through the teacher's behavior that he can retain infantile gratifications if he chooses and still learn, he will be less afraid to achieve.

This is the time for the teacher to show the child how achievement will put him in an even better position to obtain whatever gratification in life he may want. The same emotional energies which were lost to the child in his efforts not to achieve may then be turned to the very task previously opposed and may become available to the child for learning. Denton wanted some large toys but did not know how much he had to save from his allowance to get them. Ted wanted to make a model plane but could not read the directions for assembling one. When their teacher showed them how learning would make them better able to get what they wanted, the energy the boys had used to resist learning, for fear it would prevent them from getting what they needed, became available for study.

These two needs are all too often underestimated in introducing the child to the classroom. The child may experience protection from the world around him and from his own destructive and angry impulses. Still if he cannot meet his basic physical needs, he will soon be so overwhelmed by physical tension and the resulting anxiety as to be unable to stay in the classroom. These children should not have to stand in line

for a long time. Nor should they have to wait interminably for an assembly to begin. They need frequent recesses and freedom, within reason, to come and go from their desks, particularly to use the toilet and to get a drink. To be able to satisfy these needs is crucial for them. Ronny had to get a drink before he could sit down and do any work. He had to have a drink between each subject. When he was allowed to go through this seemingly disruptive performance, he was able to do some schoolwork. When he was denied a drink, fear welled up within him that he would be unable to take care of himself. The dread grew so great that he could not refrain from starting trouble with other children to prove to himself that he was effective. When he could not produce this proof, he gave up and became nauseated, terror-stricken at his inadequacy. Snacks to nibble on, such as fruit, candies, or cookies, are also essentials in offering the child this kind of basic comfort.

If the teacher wants the child to find school a desirable place to be, he must begin "schoolwork" with tasks which are particularly inviting to the child. The teacher will be most successful if he chooses activities which the child is much interested in and which he is skilled at doing. In this way, from the beginning, "schoolwork" offers the child pleasures of his own. He finds that the classroom need not be a place where he is forced to struggle with alien tasks that he abhors, assigned by adults who appear to care little about him or his interests. He learns instead that the classroom can be a good place for him.

The disturbed child is extremely sensitive to his inadequacies. He magnifies the slightest rebuff a thousand times, feeling even more inadequate and less worthy of love than he did before. To protect the child's self-respect, the teacher has to accept the child for what he is and not reject him for what he is not or for what he does. The teacher has to respect the child's feelings and his reasons for his actions. In an effort to bring about "socialized" behavior, a teacher may moralize to the child. The moralizing serves no purpose but to convince the child that he must be hopelessly different in feelings and actions from the rest of the world. What the child needs is an acceptance of his disturbed behavior for what it is: his way of approaching a problem—a way that served him well at some time in some situation, the best way he knows. Only after the child's self-respect has been protected will he be able to let the teacher show him new and better ways to live in the world.

Incidentally, in the beginning the other children are unlikely to

provide the acceptance that the child needs. On the contrary, for their own protection they are likely to ostracize the disturbed child at first. While this realistic reaction to the child may be used to advantage in providing him with a substantial motive for making an effort to change his behavior at some later time, it is an unwise incentive to use in the beginning. It will challenge the child at a time when he can do no more than fight or flee. However, since the other children frequently reflect the attitudes of the teacher, his acceptance of the child can make the child more acceptable to the other pupils. At first the children reacted violently to Don's obsessive tearing of paper and books. This drove Don to tear with increasing franticness. When the teacher did not become excited, however, the children gradually accepted Don's actions more calmly. As a result Don himself was eventually able to feel safe enough to stop.

Acceptance of the disturbed child by the other children, if achieved, can be turned to advantage by the teacher in helping the child, for the other children will also help change the disturbed pupil's behavior. In general, criticism and demands made by other children are more acceptable to a child than those made by the adult teacher. When the child has begun to enjoy at least partial acceptance by the others, control can be effectively supplied by the group. The teacher can become even more of a help and even less of a critical censor to the child.

Only after the objectives already discussed here have been realized can the teacher introduce scholastic material with hope of achievement. The precise time for introducing academic subjects depends on the child, the teacher, and the circumstances. It must be remembered that emotionally disturbed children have known little success. Their early attempts at "schoolwork," therefore, should be associated with the success that has proved so evasive. The child should be able to do the first work perfectly. This may mean starting well below his supposed level of achievement and staying there for a time despite his objections. Although he may resent the "baby work," the experience of success will compensate for his resentment and outweigh any arguments he may raise. Ronny, for example, needed three years of prearranged success before he gained courage enough to face the fact that sometimes his work had errors or weaknesses. He finally was able to face this fact and still continue to try.

Actually it is how the teacher presents the "easy" work to the child

that determines whether the child will be able to enjoy success with self-respect intact. If the teacher takes the assignment seriously and feels it is genuinely worthy of the child's best attention, the child will not feel that the work is unworthy of him. On the teacher's part, what grounds for an assignment could be more valid than the desire to encourage a discouraged child's interest in school and its opportunities?

Once the child has built up confidence in himself through his success, the teacher can slowly move into more advanced work, but only after reviewing one last time the material the pupil has just covered. This caution is particularly important. If the teacher pushes the child at the first moment he is ready for new work, he will become reluctant to take over the task that assumes so much importance to the teacher. The teacher's pushing will threaten the child's still frail self-confidence, and in self-defense he will be forced to balk. At first, it is safer to continue with work which is too easy than to run the risk of failure because of work which is too hard. To press the child is to court self-respecting stubbornness which asserts itself when the teacher wants too much.

The last experience, challenge, is least often missing in school today. Of course there are various ways of presenting a challenge to learn. The challenge which comes from fear of poor marks or vague social disapproval is not so helpful to the child as the challenge to learn which comes from solving, step by step, the immediate problems of living his own life.

What has been discussed here can only be applied in terms of the abilities and capacities of teacher and child. Application of these ideas can help form a basis on which a feeling of security in the child can be built and thus serve as a steppingstone to progress in school. The child must be accepted for himself, and for the behavior patterns he has worked out. The major problem to be kept in mind is not the child's inability to do schoolwork but his inability to get along in life. It is important to recognize the many things that he can do, and do well, in spite of his disturbed life history. It is true that the school will be unable to solve all his problems. Still it can provide the strength for an attack on them. The classroom achievement of the child may be the beginning of his rehabilitation. Success in this one area may give him the strength to confront problems in other areas and thus open up the possibility of a life within, rather than outside, society.

49. Special Part-time Classes for Emotionally Disturbed Children in a Regular Elementary School *

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Proposals for rehabilitating and educating disturbed children have ranged from psychotherapeutic intervention to special residential schools and segregated classes. What methods have actually been found successful with such children in regular schools? This article is a report on part-time special activity classes conducted according to the group-therapy techniques of S. R. Slavson.

A new school approach to the problem of emotionally disturbed children has been tried out in the Willowbrook School District of Los Angeles County. It is essentially a modification for use in an educational setting of the activity group therapy techniques of S. R. Slavson.

Following is a brief narrative account of how the Willowbrook School District embarked on this project. A copy of the Slavson film, "Activity Group Therapy," was reviewed and after much careful study, it was concluded that the method could probably be adapted for use in a regular public school setting. As far as could be learned, this clinically-developed method had not been used previously in an ordinary non-specialized elementary school. It seemed worthy of trial, despite some risks and uncertainties.

After the administrators had concluded that such a project might be possible, a meeting of the third, fourth, fifth, and sixth grade teachers was held to see whether they also favored the experimental project. They were given a chance to see the film, ask questions, make suggestions,

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and approve or disapprove of the tentative research plans. Almost unanimously the teachers favored the project. They seemed heartened by the prospect of more systematic help for the emotionally disturbed children in their classrooms. They expressed the feeling that some such help was generally needed throughout education, and that it was perhaps overdue.

All agreed to keep the project confidential at first so as not to prejudice the outcome by premature comments from inside or outside the school district.

The teachers were then invited to suggest a list of possible candidates for the "Activity Clubs." Along with the names of selected pupils, the teachers submitted educational data and anecdotal records to give a picture of the child as possibly emotionally disturbed. Teachers were helped in making their selections by a suggested list of symptoms for which they could be watchful. Additional data on each child was furnished by principals, nurses, the district psychologists, the director of welfare and attendance, and the school physician either by examination or from available files. Psychiatric advice on the planning of the project was furnished by a psychiatrist from the State Department of Mental Hygiene.

When all the data had been assembled, the administrative and supervisory staff very carefully drew up the lists for the first classes. As a safety factor, and in order to aid in comparison, interpretation and evaluation, it was decided to begin the program with at least *two* such classes and two teachers. In order to escape or minimize possible misunderstandings or criticisms, it was also decided to include in each class at least one child from each ethnic group in the community (Negro, Mexican and Anglo) and one child from each of the four elementary schools in the district. Ages ranged from approximately ten to twelve years at time of entrance to the class. Boys only were accepted. (It was planned to add two girls' groups in the future.) The children were drawn from the third, fourth, and fifth grades so that they could remain in the program *at least two years* before graduation to junior high school. Educationally retarded children were accepted, but not mentally retarded.

Since there was room in the first two classes for a total of only twelve children, the most seriously disturbed children were chosen for the program. This probably constituted the least ideal operating condi-

tion and the most severe test for the program. Each class was purposely overweighted at first with more of the withdrawn, shy children than of the aggressive, hyperactive types. This was done in order that later on the necessary number of hyperactive children could be *added* (rather than having to eliminate any child) in order to achieve satisfactory *counterbalancing* between underactive and overactive tendencies in the group.

Therefore, at the first meeting of each "club," only four boys were present: two withdrawn, one "miscellaneous" or effeminate, and one hyperactive-aggressive. At the second, third, or fourth meeting, one or two more hyperactives were added, care being taken not to overbalance the group in this direction.

The clubs met *once a week* for a *two-hour session* over a *two-year period*. The sessions were purposely scheduled for the last hours of the school day, 1:30 to 3:30 p.m., in anticipation of the fact that the hyperactive-aggressives might find it difficult to return immediately from the club activities to the more restricting limits of the regular classroom.

Much possible trouble was anticipated in connection with the activity clubs:

1. *Parental opposition.* It was thought that some parents might object to placement of their child in the project. After candidates had been selected, the principals conferred with the parents individually and confidentially, explained the nature of the project, and allowed the parents to *request* placement of their child if they so desired. In all except one instance, parents were already aware of their child's special needs, and requested such placement.

2. *"Bad name."* It was thought that it would be very difficult to prevent the spread of rumors that this was a club for "bad boys" and that the pupils themselves might tend to resist placement. This prediction *was* well-founded. Several of the boys made remarks in the first few weeks such as: "We know you are trying to help us," "Joe S—— should be in here. He's about the worst boy in our school." The presence of the "good" withdrawn boys and the permissiveness of the "Club," however, counteracted these ideas effectively in time. Within a few months, the administration found it had successfully cultivated the notion that the "Activity Club" was a privilege; the number of requests by pupils to get into the clubs was seen to rise steadily. In each room which was to have a boy in the program, teachers announced the plans for the Club, mentioned that it would be necessary to get the principal's per-

mission, and managed to "select" the pre-determined candidate and one or two others from the numerous enthusiastic volunteers. The principal then "selected" the candidate from among the teacher's "selections."

3. *Leaving class.* It was feared that a great deal of guarding would be necessary to keep the boys from running wild *outside* of the room, etc. In order not to have the non-directive teacher step out of his role, some consideration was given to installing a concealed buzzer by which the principal might be alerted to look for "unauthorized visitors in the hallway." The buzzer was never installed, but the principal happened to be present in the hallway and was useful in this capacity on a few occasions. In one class the teacher solved this problem early by saying "Let's not go outside, boys. It'll get us all in Dutch with the office." The teacher of the other class held off mentioning the problem for several months and had a little more trouble; he finally made a similar statement, with similar good results.

4. *Bodily harm.* Mayhem was the first and worst of the anticipated fears. It did not actually develop in any group. This is perhaps the more noteworthy and meaningful in view of the plentiful baiting and scuffling that did ensue, especially in the earlier sessions. There were numerous occasions when the teachers were fearful about possible injuries, though they did not show it. But the boys seemed to set their own limits short of any real injury, for none occurred.

The room and materials chosen for the activity clubs were of the simplest, crudest, and least expensive kind. A large storeroom, somewhat apart from neighboring classrooms, was fitted up with a circular drop-leaf kitchen table, work benches, scrap lumber, scrap sheet metal (copper), woodworking tools, paints, clay, plaster, paper, crayons, games, etc.

The children were brought from the surrounding schools either by the assistant principal, the principal, or by the director of welfare and attendance. The conversations among the boys on their trips to or from the class often provided valuable additional clues as to their personal problems, feelings and thoughts. A one-way vision screen was placed *high* in the wall near the ceiling, at one corner of the room. It looked like the covering of an ordinary ventilator.

In addition to the regular teaching credential, the teachers chosen for the special classes possessed previous experience of a psychological nature. All three had done counseling with young adults and teen-agers.

It was agreed ahead of time that they would strive to follow as nearly as possible a neutral, non-directive, and non-verbal role within the group. If the situation were to get out of hand and correctional measures were needed, it was agreed that these would be undertaken by the building principal.

The underlying theory or assumptions behind this experiment were as follows:

The emotionally disturbed children were given a chance to employ or abandon their behavior patterns of withdrawal or aggression and their other symptoms in a group of peers so selected that the opposite behavior tendencies *counterbalanced* each other as nearly as could be arranged. The *interaction* between the children with opposite behavior patterns tends in time to oppose or "level off" the extremes, so that the withdrawn become more active and stimulated, and the hyperactive become more conforming and less impulsive. All the children, including the effeminate or otherwise disturbed child, tend in time to *identify* with the other group members and to adopt their more "regular" patterns of behavior. In addition, all the group members tend in time to identify also with the calm, mature, matter-of-fact *adult* teacher.

The teacher tries to remain as calm, neutral, permissive, accepting, uninvolved and casual as possible, without being so aloof as to appear cold or unnatural. His presence undoubtedly is somewhat restrictive and tempering for the hyperactives, but facilitative and supportive for the withdrawns. He does not strive for deep rapport, nor does he employ highly verbal methods. This would immeasurably complicate *his* job, and probably interfere with therapy by the *group*.

The behavior changes in the group characteristically take place slowly through time, and by "acting out." They take place more or less *unconsciously* (little or no conscious effort being demanded of the student), rather than by verbal-conscious-insight methods. It is to be noted that many of the children in the special classes were relatively non-verbal and non-achieving in academic subjects in the regular classroom; verbal-conscious-self-examination is not their strong forte, nor a good avenue of therapy for them.

During the two-hour period, the boys were given little or no direction, instruction, or suggestion. They were left almost entirely on their own to select any or no particular activity. Some structuring of their activity did occur in the form of materials left exposed to view by the teacher. There was some evidence that when restlessness was high

in the class, it was channeled constructively by the presence of semi-structured materials, such as boards pre-cut to make racks or boxes, patterns traced on sheet copper ready for tooling, etc.

The last half-hour of the class was spent around the small circular kitchen table where inexpensive refreshments were furnished from the school cafeteria, such as peanut butter, graham crackers, orange juice, and milk. This had the value of creating a situation where interaction of each member with all the others was possible. It provided an opportunity for the group to act or plan as a total group if it wished. Also the teacher was enabled to observe the total group from a somewhat better vantage point and to hear meaningful verbal exchanges.

After each meeting of the special class, the teacher wrote up the highlights of the activities he had been able to observe and remember. These were rich in detailed personal and interpersonal observations. Like all good anecdotal records, they attempted to give an *objective* account of the observed speech or behavior, *before* making interpretations based on these data. Mimeographed charts of the room were sometimes used to graph the positions or movements of the boys during five-or-ten-minute intervals. The teacher's anecdotal records became the chief source for studying and/or evaluating the development of the individuals and the group over the period of time.

A complete clinical evaluation of each case, before and after the therapy experience, was recognized as desirable and necessary for scientific evaluation of the effectiveness of the program. Unfortunately, the entire project had to be accomplished without any special budget and it was impossible to secure such definitive pre-study and post-study data. In lieu of such data, though certainly not as a sufficient substitute, the following brief subjective impressions of the staff and the teachers are mentioned.

The workers on the project who observed the groups from the beginning, and who studied the weekly anecdotal records, believed they noted a definite increase in activity and confidence on the part of the "withdrawns" in all cases. Hyperactives appeared still noticeably active, though less hostile, less inclined toward serious fighting, and more inclined to engage in good-natured horseplay. Perhaps this represented a socialization of the hostile impulses into more acceptable channels of humor and sports. The regular classroom teachers also reported a seeming improvement in the withdrawns in most instances; in a few instances they reported improvement for the hyperactives also. In one case, a

worsening of the hyperactive condition was suspected, but the teacher was not certain of this, nor was the staff.

From the fact that three special classes were carried on with no known untoward effects, it would appear that at least one definite conclusion may be drawn from this project at the present time:

It is possible within the *ordinary educational setting* of a regular public school, and with the aid of certain specialized personnel, to *employ the group activity techniques* developed and utilized for more than twenty years by S. R. Slavson and known to be successful for many emotionally disturbed children.

It was the opinion of the research team that the results of this pilot project warrant further study and replication. There is little doubt that Slavson's methods are effective with emotionally disturbed *school children at the clinic*. Why not *at the school*, if employed there?

Future replications should tackle at least two important considerations not dealt with here: (1) *How* effective is the method in each individual case at school? To determine this, full clinical data will be needed on each child *before* and *after* the two-year period in the special class. (2) How feasible, effective, and advisable is it, in the school setting, to set up and maintain monthly group therapy meetings or other regular contacts with the parents of the special class children?

50. Facilitating the Results of Therapy *

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Classroom teachers are occasionally faced in their classes with children who are receiving psychotherapy regularly from a psychiatrist or a psychologist. What is the role of the teacher in this treatment process? How can the teacher contribute to the effective-

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ness of psychotherapy? Too often, teachers still react by stigmatizing these children in some way. Palmer Graver suggests some practices that will help prevent the classroom situation from destroying the beneficial results of therapy.

"I referred the youngster to the psychologist, but nothing happened." Such a statement, frequently made by the teacher in the elementary school, reflects a basic problem in therapeutic work with children, for it indicates the point of view that the reason for the referral was to have something done *to* the pupil. Unfortunately this attitude is common among school personnel.

Upon examination, one can detect reasons for this teacher attitude. Among them is the fact that the results of therapy may not be reflected immediately in the overt behavior of the child. Then, too, although the appropriate kind of behavior may be recognized by the pupil, the situation which confronts him on returning to the classroom makes it difficult, and sometimes impossible, for him to display this behavior. A third reason is that circumstances basic to the original referral have structured the pupil-teacher relation in such a fashion that it presents a rather formidable obstacle for both the pupil and the teacher. A fourth, and perhaps the foremost, reason is a failure on the part of the teacher to recognize the purpose and process of therapy, with a resulting lack of understanding of the position of the pupil at the completion of a therapeutic sequence.

Regardless of the nature of the problem, therapy attempts to modify the pupil's behavior in a manner that will make it possible for him to establish more favorable relations with his environmental circumstances. In the elementary school the range of problems with which pupils are confronted from time to time is extensive. Some problems deal primarily with attitudes of pupils in which they misunderstand their relations with others. Frequently these problems are categorized under labels such as "non-co-operation," "negativism," "aggression," and "withdrawal." At the base of each of these problems there is an element of conflict which, when it interferes with the status quo, serves as the occasion for referral.

There are other sorts of problems, however, which may not reflect a conflict with other individuals but rather indicate a deficiency which conflicts with the best interests of the pupil himself. For example,

deficiencies in basic skills for which remediation might be appropriate and physical handicaps such as poor eyesight and hearing may be reasons for referral for therapy.

Generally, when pupils are referred for special services such as therapy, it is necessary to remove them temporarily from the regular activities of the class. This brief or extended separation often breaks down customary classroom relations and, at its termination, causes some difficulty for the pupil who returns to the class group. Insight on the part of the teacher into the complexities of referral, therapy, and resumption of class activities is a necessity.

As used in this paper, "therapeutic process" means an interaction between a pupil and another individual who serves in the capacity of a counselor. This interaction is largely attitudinal in nature and takes place within a non-authoritarian structure. In this regard it is in keeping with the theories advanced by Carl R. Rogers (4, 5)¹ and is, of course, one of several methods for providing assistance to the individual in the solution of his problems.

If the therapeutic process is analyzed carefully, it is apparent that modification of behavior is a phase which depends on antecedent exploration and understanding. In the initial circumstance, therapy is only a meeting of minds relative to a problem. Within this interaction the problem is presented by the client. What he presents is a description, which fits his own frame of reference, of a situation that is creating feelings of anxiety. The therapist, on the other hand, has no source other than his own frame of reference within which to interpret the situation presented by the client. The degree to which the therapist and the client perceive common factors of the problem within their respective frames of reference constitutes the recognition of the problem. Regardless of the actual problem, this common recognition is the means by which therapy can proceed. Obviously the "facts" contained in the recognition of the problem are abstractions and can be manipulated only on a symbolic level (7).

In order to help the pupil, the therapist and the pupil talk about and review various aspects of the problem. In the process of discussing their common understanding, new interpretations may arise, and possible courses of action may evolve. The discussion of these innovations may

¹Numbers in parentheses refer to items in the list of references at the end of the article.

serve to reduce the degree of tension in the pupil. Consequently the discussion process is reinforced. It must be remembered, however, that the problem is being dealt with on a symbolic level and that the ultimate goal is to achieve behavior which will reduce the anxiety feelings of the pupil.

Often therapy produces no results other than the proposal of courses of action, and the pupil may return repeatedly to the therapist to discuss these courses of action. A sort of "good intentions" stage has been reached, in which tension is reduced considerably by simply talking about what the pupil might do under the circumstances. It is important at this point to consider the next step, which consists of translating the good intentions of the pupil into action. Here the classroom teacher plays a significant role.

Before the teacher can facilitate the results of therapy, he must recognize that the pupil has succeeded in handling his problem only on a symbolic level. He has not had something "done to him" which supplies him with behavioral patterns that are in keeping with the expectations of the teacher. Rather, the pupil returns to the teacher in order that he may have an opportunity to translate his symbolic handling of the problem into appropriate action. He needs considerable assistance and understanding from the teacher in order to make this transition. The teacher's task is to provide a classroom situation which will be conducive to this change.

If the circumstances of referral were such that pupil teacher conflict played a predominant role, the teacher's attitude might be one of hostility toward the pupil, and a "now you show me that you can cooperate" attitude emerges. A contrasting attitude on the part of the teacher might be one which reflects a feeling that "now all is sweetness and light and Billy will not be a problem any more." The second attitude is more subtle, but no less harmful, than the first. While these attitudes represent extremes in dealing with the pupil after therapy, neither conveys the attitude of acceptance so necessary in facilitating the results of therapy.

The attitude of acceptance has far reaching implications for the classroom teacher and is closely related to his entire function. Too often it is considered to be an attitude that can be conveyed merely by stating its existence. Because its existence has been stated, the assumption often is that the individual for whom it is intended receives it at face value

and acknowledges that it exists. What is frequently overlooked is that an attitude of acceptance cannot be conveyed on a verbal or intellectualized level (4).

The main point to recognize is that the attitude of acceptance is conveyed largely through action. That is, a person's behavior makes known to others that he is willing to accept them as they are and to work with them co-operatively. In this respect, acceptance is placed on a feeling level rather than on a merely verbal level (1, 5, 6). In the main, acceptance is conveyed by gestures, tone of voice, a quick smile, small amenities, and a variety of other bits of behavior. In addition, through conversation the individual becomes aware that he is being accepted. By the teacher's expressions of interest in, and understanding of, the pupil's activities, acceptance is emphasized.

The first requisite, therefore, of a classroom situation that will facilitate the results of therapy is an unmistakable teacher attitude of acceptance. From this point the teacher's function is one of manipulating classroom organization and facilities in such a manner that the opportunity to test the utility of courses of action developed during therapy becomes apparent to the pupil.

The attitude that the teacher maintains frequently affects the emotional tone of the entire class group (2, 3). Insofar as the teacher maintains an attitude of acceptance, the attitude of the class group will also be one of acceptance. Within the structure of a social climate of acceptance, the individual who is attempting to effect a more favorable relationship with the group will be more able to accomplish his objective.

A program for assisting the individual to re-enter the group might be illustrated by five steps. Variations of these would, of course, be necessary, since not all cases or circumstances are alike.

1. Preliminary to the child's re-entrance in the group, the teacher should be informed by the therapist of the results of therapy in order that he may have a thorough understanding of the case. With this as a background, it is advisable for the pupil and teacher to become re-oriented to each other by talking about what has been taking place in the classroom during the pupil's absence. Such a discussion should avoid a review of the pupil's problem and the progress of therapy. Rather, it should be concerned with information that will be valuable to the pupil in understanding the nature of the group's activities. Provided that this

informal discussion is carried on with the appropriate teacher attitude, it should become evident to the pupil that the teacher is accepting him and that there is a place for him in the activities of the group. It goes without saying that any notion of probation or a trial period would be inappropriate at this point.

2. When the pupil re-enters the group, it would be advisable to avoid formal recognition that he has returned. His presence in the group is clearly apparent to the group membership.

3. Obviously the more natural the situation of the classroom, the more easily the pupil will be able to fit himself within the group. Pre-arrangements with members of the group to perform specific courtesies toward the pupil become superficial gestures of acceptance that rarely carry genuine acceptance. Others pupils may be oversolicitous in attempting to involve the pupil in the group's activities.

4. Perhaps one of the most significant aspects of the process of assisting the pupil to re-enter the group is to see that he participates in some form of activity. It is important that this activity be one in which the pupil is reasonably assured of success. Since absence from the group often causes a pupil to fall behind in class work, the pupil's activity should be such as to allow him to recapture that which has been lost and should, at the same time, give him a feeling of accomplishment. To pick up where he left off or to attempt to participate at a level consistent with the status of the group may cause difficulties that represent a threat.

5. Throughout the rehabilitation period, any gains and successes attained by the pupil should be recognized. The danger, however, of superficial recognition is apparent. What the teacher is attempting to accomplish is to reinforce behavior that serves to translate the symbolic solution of the pupil's problem into action; recognition of appropriate behavior would provide the reinforcement needed. Also, caution should be exercised in the use of criticism of inappropriate behavior because a withdrawal from positive action might result and the effects of therapy might be vitiated.

In summary, it may be said that the results of therapy are often destroyed by the classroom situation to which the pupil attempts to return. By providing favorable circumstances, the teacher can do much to facilitate the effectiveness of therapy. Foremost among these are an attitude of genuine acceptance and an organization of activities that will encourage the pupil to engage in activity which seems to provide him

with an opportunity to transform symbolic solutions to problems into action.

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51. What the School and Community Can Do to Prevent and Control Juvenile Delinquency *

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Juvenile delinquency as an expression of social-emotional maladjustment is not a new problem. Furthermore, it is a problem that cannot be solved by the efforts of an isolated community agency. William C. Kvaraceus presents principles for the coordinated effort of school and community in identifying potential delinquents and in providing treatment for them.

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Principles for School and Community Action

Community attitudes must be positively oriented toward the delinquent. No deviate child among exceptional children suffers more in the way of retaliatory and rejecting attitudes on the part of those around him than does the delinquent youngster. This is true not only of the general public's attitude but is also true of some professional workers. A study of the "Letters to the Editor" columns in the Boston press recently revealed a strong punitive, attacking, or rejecting flavor. Letter writers cried for "sending them away for good," a greater use of the "night stick," "locking them up," "publishing their names." Instead of attacking juvenile delinquency, these writers were attacking the juvenile delinquent himself. If they were not aiming their wrath toward the young offender, a more respectable target was to be found in the parents of these children in a "get tough with them," "fine them," "jail them" theme. Instead of offering these children a helping hand the community was using the back of its hand.

A similar, but perhaps not so intense or widespread feeling-tone can also be noted among many professional workers, including teachers, toward this young but irritating member of our society. In a West Coast study¹ in which a group of youth workers was queried on their attitudes toward all types of exceptional children, the delinquent child was the one which these workers would "least prefer to deal with"—if they had a choice. The delinquent child is a hostile child; but he is met with equal hostility on the part of the community.

School and community practices must be based on facts. The "practical" worker today is the one who has his feet on a firm theoretical framework that has been anchored to the bedrock of sound research. To beat a child, to berate him, to scare him, in an effort to reform him represent impractical approaches since the research studies indicate clearly that these techniques only tend to confuse and confound him. There is no end to opinions as to what to do with or to the delinquent but we do have a severe shortage of facts as found in the research literature. The effective practitioner will be the one who, cognizant of the implications of the research in his field, attempts to implement these promising practices and constantly strives

¹ W. C. Kvaraceus, "Acceptance-Rejection and Exceptionality," *Exceptional Children*, May, 1956, pp. 328-331.

to evaluate his effectiveness in spite of the common and popular rash of subjective and personal opinions that may be in the air as to the best ways and means of handling juvenile offenders.

In addition to the research implications concerning promising practices and adaptations that should be the "stock-in-trade" of the professional worker, the community needs "to study and get the facts" as to the nature and scope of its own youth problem. Too often the local community alibis or denies the existence of any delinquency problem. All too frequently it is a problem in the next town or in the nearest large industrial center. The one-half million delinquents who were reported in the 1955 national statistics never seem to have local residences. A major handicap on the part of the local community in doing anything about the delinquency problem stems from the reticence on the part of its members to face its problems squarely by setting up machinery for gathering the facts locally. Only when the community knows its full youth story can it plan an effective prevention and control program. Too few communities today can boast that they actually know the true nature or the extent of the local delinquency problem; too many communities stand "pat" in their ignorance and deny the existence of any "real youth problem."

In an effort to aid local communities in their self-study and evaluation, a Scale for Appraisal of Community Progress in Delinquency Prevention and Control² has been prepared. This guide enables the community to measure its program in such areas as: initiating, planning and coordinating a program; identifying and reducing danger factors; educational standards and practices; recreation and group work; discovery and referral of problem cases; apprehension of offenders; detention and adjudication; social treatment and readjustment. This instrument brings into sharper focus many of the key questions that enable a qualitative self-inventory.

Early identification and referral of pre-delinquent and delinquent children must be done systematically. Prevention cannot be achieved without systematic and scientific efforts to identify at an early age those children whose deviations in personal make-up and whose deviations in home, family, school, and neighborhood promise future haz-

² W. C. Kvaraceus, *The Community and the Delinquent* (World Book, 1954), pp. 168-184.

TABLE 1

Personal and Environmental Deviations of Many Delinquents
As Reported in Controlled Studies of Delinquents
and Non-Delinquents

<i>Deviations in Personal Make-up</i>	<i>Deviations in Home, Family and Neighborhood</i>	<i>Deviations in School</i>
Mean IQ—89 (lower academic aptitude or verbal intelligence re- quiring abstraction, con- centration, persistence)	Contradictory social norms in home and/or neigh- borhood	"Poor" or failure marks
	Identified with delinquent sub-culture	Repeater (retarded in grade)
Mesomorphic (muscular) constitution	Atypical home structure (broken home)	Strong dislike and hostil- ity for school
Emotional malfunctioning and disturbances	Interpersonal relationships in home wanting	Truancy
Superego—delinquency identified; value sys- tem not internalized	Economic stress, insecurity and/or substandard economic conditions	Intent to leave school early
Assertiveness strong		Motivational problem
Defiance high	Lack of moral conformity— spiritual values lacking; little or nominal church contact	Vague or no educational- vocational goals
Resentfulness high		Member of special class
Ambivalent attitude to- ward authority		Has attended many differ- ent schools
Impulsiveness	Criminality pattern	
High anxiety pattern	Culture conflicts	Destroys school material and property
High hostility and re- sentment	Deteriorated neighborhood residence	Does not feel he "belongs" in classroom
Strong distrust toward authority		
Aggression—overt and retaliatory	Discipline overstrict, puni- tive, erratic, lax	Does not participate in volunteer extracurricular school activities
Unsocialized aggression		
Emotional lability and/ or impulsiveness	Lack of cohesiveness	
Egocentricism and self- indulgence	Supervision by mother in- adequate or unsuitable	Seriously and persistently misbehaving in school
Suggestibility strong		
Low frustration-tolerance	Affection of parents indif- ferent or hostile	
Adventurous spirit		
Moral psychopathic tendency		
Hypomanic tendency strong		
Low neurotic pattern		

ards or difficulties in personal adjustment. Table 1 summarized those personal and environmental deviations that have been found in the controlled studies³ of delinquents and non-delinquents to characterize the young offender. Children who have these characteristics or who are surrounded by these environmental pressures which are inimical to wholesome growth and development should be drawn off for a second look and should be given a helping hand. Only in this way can the community actually hope to prevent juvenile delinquency other than by generally maintaining a happy home life, a wholesome community environment, and a good school program.

Mention must be made of the too general practice of "letting the first offender go." Much preventive effort could be made by drawing off for intensive study all the first offenders who come in contact with police, truant officers, guidance counselors, school principals, etc. We need no special tool or instrument to identify these cases. Their behavioral adjustments give loud evidence of the potential need for help. To ignore them and to dismiss them as first offenders is to court the danger of habituation that will make future efforts at adjustment all the more difficult, if not profitless.

To aid those workers who come in frequent contact with children and their families a number of prediction tools and devices have been especially prepared for the purpose of early identification of delinquency-prone, vulnerable, susceptible, or exposed children. While no one of these instruments is fool-proof or predicts with 100 per cent accuracy, the following have been shown to have sufficient validation data to recommend their use by trained professional workers:

The Glueck Prediction Tables⁴

K D Proneness Scale and Check List⁵

Porteus Maze Test⁶

Minnesota Multiphasic Personality Inventory⁷

³ *Ibid.*, pp. 88-108.

⁴ Sheldon Glueck and Eleanor Glueck, *Unraveling Juvenile Delinquency* (Commonwealth Fund, 1950).

⁵ W. C. Kvaraceus, *K D Proneness Scale and Check List* (World Book, 1953).

⁶ S. D. Porteus, *Qualitative Performance in the Maze Test* (Psychological Corporation, 1942).

⁷ Starke R. Hathaway and Elio D. Monachesi, *Analyzing and Predicting Juvenile Delinquency with MMPI* (University of Minnesota Press, 1953).

Behavior Cards: A Test Interview for Delinquent Children⁸

Child study and diagnostic resources must be available and accessible. It is not enough to identify the predelinquent and young offender. The community must be equipped to study the meaning of the child's behavior, to determine his specific needs and to plan a treatment program. This calls for a team of professional workers including: psychiatric and psychological services, casework skills, psychotherapy, remedial tutoring, group therapy, counseling. But all these services demand a sizeable expenditure on the part of the community. The problems of delinquency cannot be faced or solved on marginal time of busy professional workers nor by the volunteer efforts of untrained lay personnel—no matter how well motivated they may be. It is almost platitudinal to repeat that "Children are our most valuable resource." Yet most states and the nation appear ready to spend more money on roads and cars than on children. It is unthinkable that we cannot afford these services to children when one views the expenditures for overseas aid, for military establishments and weapons, and for cosmetics and liquor. It appears evident that we are unwilling to make the expenditure for our children who apparently, on the budget sheets, are not really "our most precious resource."

Treatment must be individually and systematically carried out. Once the community knows the meaning of the malbehavior and the needs of the potential or actual delinquent, a treatment program must be individually planned and systematically carried out. The child who requires an X-ray treatment must be rendered this service even if it means transporting him from one end of the town to another or even to a nearby metropolitan center. Similarly the socialized delinquent whose value system needs to be revamped and internalized should be enrolled in a promising group treatment program utilizing the most effective group agency resources. Treatment is always individually conceived and systematically carried out by utilizing all the community and regional resources. There is nothing hit-or-miss in this process.

A high degree of coordination must exist between child-serving

⁸ Ralph M. Stogdill, *Behavior Cards: A Test-Interview for Delinquent Children* (Psychological Corporation, 1949).

and family agencies. An underlying assumption throughout the discussion of local study and research, early identification and referral, study and diagnosis, and treatment has centered around the coordination of all community resources so that any child who requires help can get the kind of services he needs at the strategic moment of need. This assumes that the agencies know each other's resources, have developed liaison relationships and clear lines of communication.

Effective coordination will remain a vain hope until the community has established an over-all community organization representing all child and family agencies with full-time trained executive personnel to plan and steer the activities of this parent group. It is this group that should conduct local research, do local planning and carry on an objective evaluation of community efforts. Without this over-all look, community efforts are apt to be sporadic, lopsided, poorly timed, and ineffective. Only when there is a smooth meshing of all agencies within the total community effort to help youngsters and their families can we bring the most help to the greatest number and at the right time.

Some Unique Opportunities and Responsibilities of the School

As one studies the nature of the delinquents' personality make-up and then notes the essential aspects of the school agency, the combination spells trouble as can be seen in Table 1. The delinquent frequently represents some combination of an alert, aggressive, spontaneous, pleasure-seeking and indulging, expressive, impulsive, non-academic child who has a hostile or ambivalent attitude toward authority and who has not identified himself, completely, with the value systems espoused by the school. The school, on the other hand, represents an authoritative agency which must operate on principles of order and regulation, which demands persistent work effort in the learning process, and which calls for cooperation based on the ability to relate effectively to persons of one's age group as well as to adults. As the third caption in Table 1 (deviations in school) indicates, this combination of clientele and institution spells prolonged and aggravating frustrations and pressures. Even a good school program will tend to bring out delinquency as seen in truancy or school vandalism on

the part of the child who has a latent tendency toward delinquency.

The question is raised: What can the school do to alleviate and help the child with delinquency tendencies? The answer is: By itself, little or nothing; as one agency working hand-in-hand with all other community agencies it can occupy a "king-pin" position in an over-all effort to prevent and control juvenile delinquency. It should also be pointed out that the school's responsibility to the delinquent is not any different from its responsibility to any other child in the need of help—whether he be physically handicapped, a victim of tuberculosis or cerebral palsy, or whether he be blind or hard of hearing. The most effective and direct approach to the delinquency problem on the part of the school will be to make good schools better schools.

To the extent to which the school incorporates the following adaptations or practices for *all* youth as well as for the social or emotional deviate, it will lessen its own threat as an institutional agency to the latent delinquent and will actually steer the pre-delinquent and delinquent child to a more wholesome adjustment.

The school must know its individual pupils. Through the use of cumulative school records, tests, controlled observation, medical examinations, home visits, case studies, the school staff should be able to recognize the needs of all pupils including outstanding social deviates.

The school program must meet the needs of all children. An unvaried curriculum that forces pupils with strong allergies to eat of the single menu can actually precipitate delinquency. The school's offering must be varied and must enable all youngsters to see and attain values that fit into their own personal growth and adjustment needs. This means that the local schools must carry on a continuous program of curriculum revision and planning.

The school must offer an organized guidance and counseling service to all youth. This calls for professionally trained personnel who are released from classroom duties.

By alerting teachers who come in contact with all youth to those early tell-tale signs of future delinquency which are implicit in the research findings showing differences between offending and conforming youngsters (see Table 1) the school can siphon off the large reservoir of youth from which will stem many, if not most, of the

future delinquents. Restricting ourselves to those factors arising within the school experiences and visible on the school horizon, the teacher should be on the lookout for the child who shows a saturation of the following characteristics:⁹ educationally he is bankrupt; his report cards show many failures; he is over-age for his grade, having been kept back once or more often; his outlook toward school is heavily charged with hate and hostility; he changes schools frequently; he intends to leave as soon as the law allows; he is caught in the vice of an academic curriculum for which he has little academic promise and less interest; he is the teacher's worst motivational problem; he is frequently truant; he joins no extra-curricular activities; he feels he does not "belong" to the classroom group; he takes it out on school property via school vandalism; he is a bully on the playground, taking it out on people; he does not accept the simple rules and regulations of the school and does not abide by them.

The school must make available to the teacher special services to aid him in understanding and adjusting pupils. These services include: guidance personnel, psychological service, special classes, remedial reading personnel, home visiting service, school nurses, medical personnel, attendance service. These services cost money. Good schools will cost more than inferior schools but the additional expenditure may make the difference between low and high delinquency rates.

The school should organize and conduct frequent guidance conferences to achieve better understanding and adjustment of pupils who have problems. Only when all persons, who come in contact with needy youth, meet regularly to share information, to study and diagnose and to work out cooperative measures for treatment can assistance be offered effectively to many youth in the need of a helping hand.

The school must offer more work-study programs for certain youth who will enter the world of work on leaving school. Most delinquents see little or no sense or value in the present school program. Only when training in school is carefully tied in with training for the beginning job will many youngsters choose to remain in school in preparation for a more productive and effective adult life.

The school must aim to develop children who are effective family members now and who will be more effective parents later. More

⁹ W. C. Kvaraceus, "A Teacher's Check List for Identifying Potential Delinquents," *Journal of Education*, February 1955, pp. 21-22.

attention must be focused on family life education. This may be done through special course offerings as well as through integration of materials on family life in every phase of the regular curriculum.

The school (and other community agencies) must concern themselves with strengthening of the moral and spiritual growth of the pupils. The schools have many opportunities to reinforce everyday ethics both through the curricula as well as extra-curricula experiences of the school.

The emotional climate of the school should be conducive to wholesome living and learning. Dependence upon fear and punishment through exclusive use of outer-controls, as found in the traditional schools, will seldom develop the inner controls that are needed in daily living. Classrooms ridden by threats of failure or retaliation, no matter how subtle, can embitter children and soften them up for the first delinquent act.

The school, especially today, must try to maintain reasonable class size. Classrooms filled with forty children can wear down the most conscientious worker. If the teacher is expected to serve individual children who vary markedly in their abilities, achievements, interests, and home backgrounds, he had better not be handed many more than twenty-five children.

The school must carry on a planned program of in-service training of staff. Not only new teachers but older instructors long on the job must be helped to improve their professional competencies and to keep in touch with the implications of recent research.

The schools must assign their most competent teachers to classes in high delinquency areas and to schools in underprivileged or deteriorating neighborhoods. The best talent on the school staff should be harnessed to help those needing attention and help.

The school should maintain a close contact with every child's home and neighborhood. There is need for hiring liaison personnel to work with parents. This may be a visiting teacher, school nurse, social worker, or attendance officer. The school that sets up no lines of communications will have a more difficult job in helping children whose behavior indicates that something is wrong in their own personal makeup or in their home backgrounds.

The school must offer many and varied activities in its after-school program in order to engage the child in worthwhile pursuits.

A strong extra-curricula program that stresses something more than athletics for the gifted child can do much to encourage wholesome outlets and leisure-time pursuits.

The school must make available its plant and equipment in an all-day and year-round school-community program for all youth as well as adults. The full use of all facilities (gymnasias, general-purpose rooms, classrooms, and assembly halls) should be encouraged on the part of all neighborhood groups and organizations.

The delinquency problem cannot be solved or even relieved by the schools alone. This is a task calling for the coordinated efforts of all community agencies of which the school is one important segment. On the other hand, a community program which aims to identify the potential delinquent at an early age, which tries to study and diagnose needs of the delinquent and pre-delinquent, and which aims to provide treatment in accordance with the individual diagnoses but does not enjoy the active support of good schools will be limited to minor victories.

52. Dealing with Problem Youth *

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Many children who manifest hostility toward school, teachers, and society are slow learners. Are the schools actually reaching these slow-learning, semidelinquent youngsters? What type of program could the school initiate that would serve them more effectively? What can other community agencies do to help? Robert J. Havighurst suggests realistic solutions to the problems of educating this neglected group of exceptional urban youth.

The present general temper of being tough with the young student is both good and bad. It is good for children with the ability

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to do better work. But it might lead to a punitive attitude toward those who don't and can't do well in school, and this would do more harm than good.

What is really needed by the slow learners is a simplified academic program combined with some out-of-school experience which assures a youngster that he is growing up. Unless school administrators and school boards are ready to initiate such a program, they had better move in the direction of modifying our child labor laws. For a considerable group of social misfits would be better off out of school than in school, as school is conducted now.

Let us never call difficult children "dead-end kids." Yet with admirable accuracy we can say that these youngsters are confined in "dead-end schools." We pride ourselves on our special classes for the hard of hearing, the sightless, the retarded, and the physically handicapped. And we are beginning once more to show concern for the gifted. Yet apparently we only shudder over the outbreaks of violence in the schools of New York City and other metropolitan centers, wondering when these sporadic reigns of terror are likely to end. Where the youngsters themselves are going to end, we can reasonably predict.

During one of these incredible crises, we can police school corridors and classrooms, but our business as educators and parents and citizens is to prevent from arising in young people such manifest hostilities toward school, teachers and society. And to achieve this we shall have to start very early in school life.

For the most part stealing, breaking traffic laws, sexual misbehavior, and vicious school conduct keep close company with school failures and near-failures. Misconduct begins to show up conspicuously within the 14 to 16 year old group. It flourishes particularly in big cities or in cities large enough to have a half-dozen or more of these "difficult" boys and girls in a given age group.

Schoolmen call these students "difficult," "maladjusted," or "hard to understand." Sociologists call them "hard to reach," for such youngsters shun settlement houses, churches and other agencies set up to help them. The burden thus falls almost wholly on the schools.

In a study the Committee on Human Development at the University of Chicago has been making, we find that most of these hard-to-understand children are slow learners. They have an I.Q. of between

75 and 90, as does approximately 20 per cent of an average population.

Many children in this range of intelligence do passable work in school and go through adolescence without much trouble for themselves or the community, especially if they live in a decent neighborhood. The rest of them, comprising from 5 to 10 per cent of the total age group, make up this hard-to-reach group. While some boys and girls with greater intelligence also have difficulty in growing up, this one definable group comprises the major problem with which the ordinary high school and community must deal.

Four-fifths of the entire group of slow learners in our committee's study are from families in the lowest third of the community in socio-economic status; 37 per cent are from broken homes. The parents are poor models; they fight, they get drunk, they are sexually promiscuous, the mother may work outside the home, the father may have deserted the family. In our study this group contained half of the boys rated by school administrators as severe discipline problems. Sixty-two per cent of the youngsters had dropped out of school before the 11th grade. They appeared $2\frac{1}{2}$ times oftener on police records than those in the remainder of the age group.

These troubled and troublesome youngsters may be divided in two subgroups. One subgroup is aggressive, discontented and hostile to school and legal authority; it craves excitement. The majority of these youngsters are boys. The other subgroup, the majority being girls, is fearful, shy, apathetic. Unless something happens to help them, the aggressive, hostile youngsters will populate the prisons, and the withdrawn youngsters will overcrowd the already overcrowded state hospitals of the future.

The cause for both types of maladjustment is the same; failure to grow up successfully. The boy or girl of 14 to 16 is no longer a child; he or she has the physical strength and the biological urges of an adult. But the pathways to adulthood are blocked.

What are the pathways to adulthood? They are three: (1) school, (2) work, and (3) marriage.

During the waiting period until society is willing to acknowledge their readiness for adulthood, these early adolescents are condemned either to a life of seeking after excitement, sensual gratification, and the acting out of fantasies of being grown up, which is the

pattern of the aggressive ones, or to a life of apathy, hopelessness and daydreams, which is the pattern of the passive ones.

School is the avenue to better jobs, to places of prestige and privilege among the young people of the community. The youth who is failing in school knows that he cannot hope to achieve prestige and win leadership privileges there.

The child labor laws prevent the 14 and 15 year old from getting a good job. Even the 16 or 17 year old has difficulty in finding that pathway to adulthood, because of the prevailing prejudice against hiring youths under 18 and scarcity of apprenticeships in the American labor pattern.

The marriage pathway is the one sought by many girls who are blocked in their school progress. Marriage at 15 or 16 is actually a good solution of the problem of growing up for some girls. It is a dangerous solution for an inexperienced girl because she is likely to make a mistake. Well meaning but fearful parents may thwart such a marriage or it may be prevented by the boy friend going into military service, requiring her to wait a year or two.

The most important attack on the problem should consist of efforts to improve family life—an unpromising school assignment. These lusty or listless parents are not likely to be lured to a lighted schoolhouse to pursue culture, practical courses, or even sports. The appeal of the corner bar is stronger.

The one best hope for family improvement in these disadvantaged neighborhoods is with the drop-outs, particularly the girls, who may have married early and are mothers in fact or in prospect. To reach them will require heroic effort on the part of the school.

One suggestion is this: While they were in school, there must have been one or two teachers they admired, secretly or openly. Let us assume the girls in Lincoln Junior High liked the home economics teacher, and the home economics teacher, looking deep enough inside these girls to glimpse the hidden good, liked them.

With the administrator's blessing, the home economics teacher organizes a little club of drop-outs or junior high alumnae. They meet weekly at school, perhaps at 11 a.m., perhaps at 3:30 in the afternoon. They talk about cooking and eating the right sort of meals, prenatal health, and sewing, caring for and "bringing up" a baby. Out of this little club, if it is halfway successful, the girls begin to sense a home

environment they never experienced themselves. This will give the coming generation a more successful start than the young parents had.

What can—and must—the school do by means of a revised curriculum? It can nurture the slow learners in the first and second grade, providing them with teachers who are genuinely interested in working with just such children. The ungraded primary room is a good device, for the children can have a two-year or three-year period in which to get started on the essentials, and those who are a bit slow will have time enough to lay a good foundation.

Even so, some boys and girls will reach junior high while able to read only at the fourth or fifth grade level. And the junior high school years are the crucial years. Here should be instituted a specialized program for slow learners graded to their ability level, a program that gives a reasonably clear pathway for growth. For these boys and girls, work experience is essential, as they can get a feeling of successful growing up by earning money and by doing useful work, even if their school performance is discouraging to them. Schools should undertake a patient and persistent program of finding jobs for these children and supervising their work.

Of any school program for slow learners the most important element is the teacher. Good teachers can be found. Some teachers prefer to deal with slow or maladjusted children and take a dedicated attitude toward the work. Teachers are entitled to more pay for this difficult work in a difficult school. While the teacher is vastly more important than the teaching aids or equipment, these too should be supplied. An after-school recreational program under well qualified and well paid supervision is a necessity.

Too, hard-to-understand children require more visiting teachers and more skillful counseling. These services also are costly. In fact, a program that will suffice for the maladjusted child is bound to cost half again as much—or more—than is spent on teaching the normal child.

For these children forced to remain in the classroom until they are 16, there needs to be radical experimentation with the school program. Who is to perform such experiments?

Suppose Chicago or Detroit, for example, should decide to try for early detection of troublesome children on an experimental basis. Not anticipating the bliss of getting tax funds for a purely research

project, the school administration and board of education would approach one of the foundations and ask that it underwrite an experimental program. Having obtained an appropriate grant for a five-year program, the board would enter into a contract with a near-by university department of education to direct the research. It might designate five schools in disadvantaged neighborhoods for the experiment.

If the findings of the five-year study should point in a definite direction, then school administrator and board could approach the taxpayers for funds to serve this specialized group on a citywide basis. Thus another forgotten group would be served—this one to the incalculable benefit of our society.

At such a proposal in any school system immediate resentment would flare up among those with a vested interest in present programs for delinquent youngsters. Yet these special schools, as they exist in large cities, are little more than custodial institutions. Their students have been dumped on them too late for correction, let alone prevention. Only early detection of these hard-to-understand youths will prevent them from becoming serious problems.

Now what can society do for these youngsters? It can examine existing child labor laws to find out whether they may not be unnecessarily limiting the opportunities for boys and girls over 14 to get wholesome work experience. It can develop and enlarge wholesome recreational programs for teen-agers, giving them a chance to get excitement and pleasure under circumstances that do not deprave.

Questions have been asked about the use of the automobile as an instrument of delinquency. Being allowed to drive a car is the boy's chief symbol of adulthood. Of course, the accident and insurance rates are pushed up by juvenile speedsters, and social controls are necessary, but to raise the driving age to 18 would be sheer stupidity. A boy will work hard and steadily to pay for a car when he would not work hard at school, for by driving or owning a car he sees himself a success in at least one aspect of growing up.

Girls have no such symbol, the girl's rôle being more retiring. She wants freedom to have dates, to choose her own friends, and to stay out nights. For boys who drop out of school, work is the beginning of a career. To girl drop-outs, work has no growing up function; a job as a barmaid or waitress leads nowhere. It is merely a way of

passing the time or saving a little money for a wedding outfit or some furniture for the place she and some boy will call home.

Perhaps the adolescent girl marries and stays on in school; under a simplified academic program she would be "growing up" in two ways. The married student in high school today is no more of a rarity or no more frowned upon than was the married student in college or university a generation ago. School administrators may have to change their minds.

Let us return to the semi-delinquent youths who are causing so much trouble nowadays. It is too much to expect that all of them could have been reformed by better social and educational measures, but there are not very many in the truly extreme group. The troubles in New York City appear to have been caused by only $\frac{1}{2}$ of 1 per cent of the age group.

No state in the nation has the right sort of institution to deal with these extreme cases. Reformatories don't reform. A helpful device might be a work camp in every county, where wholesome outdoor jobs could be done under discipline. A youth authority in California is dealing in this way with a small group of delinquents. Heretofore school administrators have shown great reluctance to the setting up of an authority parallel to the school. Perhaps schoolmen, by broadening their concepts on this point, would welcome some agency that would take the responsibility for continuing treatment of such delinquents.

How much cheaper in comparison would be a preventive program such as the public schools can put on through a simplified academic program for slow learners!

53. Police-Teacher Amity *

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Because the police force is gradually becoming a more effective child-serving agency, schools may find that they have a valuable ally in the fight to prevent delinquency. What can the police force do to help the schools in this endeavor? How can the schools cooperate? William W. Wattenberg suggests that an effective working relationship between the school and the police youth bureau may be effective in combating juvenile delinquency.

Work with youth is becoming a recognized specialty within police forces, and police officers engaging in it are becoming better trained. In this respect, police departments now show a tremendously wide range. In communities where political corruption is widespread, all types of police work suffer. At the opposite extreme are police departments where policemen and policewomen working with youth include some having college education with concentrations in sociology, social work, and child psychology.

Among the better police youth bureaus, officers are carefully chosen on the basis of their experience in working with youngsters as group leaders in leisure-time, organized services such as provided by the Scouts and the Y's. The selection process includes use of personality tests and interviews. After selection the officers receive continued training.

That this process is effective is indicated by statistical evidence. The author made a study of the dispositions of cases by one large police youth bureau. For approximately half the young folks contacted, the officers felt that the reactions of the child and his family indicated that

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the first experience as an "offender" would probably be the last. Accordingly, after a warning, they released the youngster. A follow-up study showed that in 80 percent of such cases, their judgment was correct. The boys concerned had no subsequent charges lodged against them.

In the other half of the total number of cases, an assortment of dispositions was made. Most young folks regarded as potentially serious offenders were sent to Juvenile Court. Others were referred to clinics, or their families to social case work agencies.

The significant part is that the modern police officer can be a worth-while partner in the important business of helping children grow up. In each school it would be wise for teachers and others working with youth to get to know youth bureau officers well enough to make a sympathetic appraisal of how they can help. Some officers they will want to use reluctantly and only in emergencies; others can be wonderful assets day after day.

What are some of the things the well-trained police officer can do in cooperation with schools or other agencies? Some problems which are brought for the school to solve are problems in the solution of which a teacher has little training but are part of a policeman's job. These, for example, are instances in which some child complains his property has been stolen. In other cases, a child has been injured on the way to or from school. Perhaps there has been destruction of school property. In a few schools, gangs may have organized shake-down rackets by charging other children a few pennies a week for "protection" against being beaten up. In all of these cases, there is a problem of sifting evidence, and questioning suspects. Not only may teachers be inept in the questioning, but their efforts may wreck relationships needed to educate.

Take, for example, this matter of protection "rackets," which have been found to be unusually widespread even among elementary schools in "good" areas. A few boys, not always husky, terrorize weak ones by taking property or threatening injury in order to extract "loans" of five or ten cents a week. If the victim should complain to any adult, he is beaten up. This scheme works well. The author knows of cases where police follow-up of a single complaint unearth payments extending over two years by a score of victims.

Schools find situations like this very tricky because teachers cannot protect the complainants from reprisal. Children suspect this, and do not come forward with evidence. The result is that on the way to or from

school, a large number of youngsters are learning unfortunate lessons. The operators of the rackets are confirmed in their feelings of power. The victims receive a vivid lesson in the presumed immunity of lawlessness. Indeed, their own ability to use violence appears to be their only safety.

In what appears to be a conflict of force, the police can protect witnesses. Their power to arrest and to have the courts legally detain has brought offenders to light. This done, schools can employ their machinery to work with parents and guide children in drawing lessons from the whole chain of events.

Too often in other types of theft, the young culprit is a child whose conduct is an expression of emotional difficulties. It may be essential that teachers work with him on a basis of help and friendship. This type of relationship takes a long time to develop. It can be spoiled if the teacher shifts roles by "playing the cop." The effect may be even worse if the disturbed child, although innocent, has to be dealt with as a suspect. The well-trained police officer can do the job of detecting and questioning without stepping out of a helpful role to youth.

Interestingly, the youth bureau officer can be of real assistance in cases where there may be a problem of getting parents either to bring a child to a clinic or to get help from a social casework agency for their own marital problems, which may be contributing to a youngster's difficulties. If the child's problem conduct includes behavior which is legitimate police business, a police officer's interest may have an impact upon parents who have shrugged off suggestions from teachers or school social workers. To many adults, teachers, and psychologists are "soft"; a policeman is "tough" and "realistic." Also, he may be able to express ideas in familiar language to parents who resist the more middle-class terminology which most teachers employ. As part of a team making referrals to other community agencies, the police can be invaluable.

The police also can aid in action to prevent the outbreak of fights which might occur on the way to or from schools. Their presence at dismissal time can be a salutary influence. The author has watched such arrangements in a school serving an area mixed as to race. Although relations among youngsters are generally amicable there is always the possibility that if two boys of different skin color are publicly to use their fists to settle an argument, either teenage or adult onlookers might take up the dispute. For eight years the principal has relayed to the police information when teachers reported a fight in school. On those days a squad car would be present at dismissal. In an area where racial

friction had once been near the exploding point, there has been a steady reduction of tension.

Communication with the police is a two-way process. No sooner is it established than the youth bureau officers will begin providing interesting and revealing facts about youngsters. They know that in many cases school failure is one factor in the interacting pattern of forces responsible for a boy or girl moving toward delinquency. Once assured of a friendly hearing, they will come to the school to find out more about some child whose actions in the community worry them. In doing so they will often supply key information relative to the youngster's home, associates, and attitudes. This information may point the way to the school's paying more attention and adopting a better program for helping children headed toward delinquency.

It is essential to realize that the school's role in delinquency is a mixed one. Although for many young folks the influence of school is to counteract delinquency, this is far from being always true. There are numerous instances where pressures generated in the classroom have added to a youngster's troubles sufficiently to lead to anti-social acts. If school is to be of maximum effectiveness in combating delinquency, it needs allies. A police youth bureau can be of major assistance. Friendly relations between police and teachers can aid both, for the benefit of children.

54. Research Needs in the Delinquency Field *

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This article acquaints the reader with the research needs in one of the many areas of work with exceptional children discussed in this book. It should be unnecessary to point out that there are research needs in all other areas as well.

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People often charge large government research agencies with being clogged with redtape, overcautiousness, and traditionalism, and give the credit for courage in pioneering to the small, informal community project.

This simply does not jibe with the tradition of pioneering in disease entities which is a part of U. S. Public Health Service history.

The trouble I have is not with creating an urge in people in government to pioneer but with convincing the general community that research in the field of delinquency is as important, broad and complex as research in any of the basic sciences.

Another major problem is to counteract the tendency to look to research as a panacea. Too often the cry for more research in juvenile delinquency, an obviously legitimate demand, is found on closer investigation to stem from a vain hope that the development of a small project here or there can substitute for needed action and guarantee a final solution of the problems we face.

The illusionary character of this outcry is apparent whenever a group of citizens demand increased research in delinquency and in the same breath ask that funds for service be cut.

Several hundred million dollars could be spent right now without wasting a penny of the money, for what we already know needs to be done. Nobody has to wait for further research to begin filling in the large gaps in our incredibly inadequate resources.

In every community there are hordes of youngsters whose problems are not new to us. Nor are the kids. They are known to dozens of welfare, counseling, service agencies; to courts, probation officers, teachers, neighborhood organizers. Thick folders of case history material lodged in numerous green filing cabinets tell their stories. Many of these children have had rather thorough "work-ups" with psychologists, social workers, psychiatrists, physicians and so forth. Our trouble in dealing with them is not that we do not know what they need. It is that, too flabby to support already existing facilities and to create new, improved ones, we do not cope with the terrific load of long-accumulated need.

Research suggestions which have their source in a flight from action can easily be distinguished from the genuine. They usually are poorly designed and do not receive solid, long-range financial and other support. To begin with, they are meant to last only as long as the dan-

gerously aroused community interest in "doing something." Once the wave of public excitement is over, such research can be easily forgotten, discontinued, or written up for somebody's file.

When a community suddenly turns its spotlight on its problems with youth, we researchers are in a tough spot, too.

The layman suddenly pounces on us and gleefully asks us the embarrassing question:

"Now, look here, the youth of our Nation is going to the dogs. Just what are you guys doing about it? How about leaving your wise theories for a minute and giving us the answers, for a change?"

Research in this area has been neglected or nonexistent for years. The sudden discovery of its potential contribution hits with a heavy blow. No wonder the research specialist looks for an easy way out.

Most of the research specialists—for more reasons than could be listed here—have been busy with something else; not with the juvenile crooks, under-aged gangsters, and child schizophrenics for whom they are suddenly supposed to find a solution.

In fact, many of the most prominent contributors to the methodology of research have rarely spent much time with either normal or pathological teenage hoodlums. They haven't sat in a school room in a slum area for many years; haven't had to squelch a riot in a model community youth center.

They know little of what it feels like to be a well-meaning house matron in a detention home that was built for 48 children, houses 104, and has neither space nor staff to do even the most basic things—a house matron who is supposed to survive without punitiveness toward a bunch of bored, restless, and, to varying degrees, sick recalcitrants.

So, the layman's embarrassing question catches the research specialist with his complacency down. Expected to give an answer to something he has not been asked about for a long time, he scurries for security to the things with which he is most familiar. And the public's demand for more knowledge about delinquent youth is met by fancy research designs, based on the best of our scientific arithmetic. Getting busy at once, he starts counting.

We research specialists have all learned to count, and to look for "countables" all over the map. We ask ourselves if it would help if we knew how many kids living in what kind of apartments do damage with what kind of props and how often a year, or if we looked at the families

who kicked these kids out and found a new "correlation" between "environment" and "crime."

I am not making light of the very important tools of statistical methods or quantitative studies. I am only bemoaning the fact that we used the best tools we have, when under duress, to hang on to the tools themselves rather than to ask what kind of insight needs most sorely to be gained.

The first question thus becomes:

"What could we use our research tools on?"

It should be:

"What do we need to know about youth in order to tackle delinquency?"

So we measure and weigh and come up with more Chi Squares if we happen to be statisticians. If "personality testing" is our main goal in life, we give another thousand Rorschachs or TAT's. Or we force a few delinquents to play with our guidance-clinic doll houses—originally enjoyed by the neurotic or phobic child.

All this is good. But the practitioner, who must make daily decisions about child life from his foxhole, has a few additional questions to ask, which will never be answered by this approach. How about listening to him for awhile?

The practitioner—by whom I mean all those who deal directly with delinquents (including teachers and parents)—has an old complaint.

He is ready to pay tribute to the long-range usefulness of our fancy formulations, terminology and curves. He politely admits the research expert probably produces a lot that is important.

His complaint is that the research expert does not answer the questions *he* asks.

And of course he is right.

On the other hand, the research expert has a complaint of his own. It is that the practitioners are asking him the wrong questions. The practitioners do not understand how complicated research is, and their demand for simple results, easily and preferably cheaply applied, is nonsense, he says.

And of course he is right.

Just as in other areas, there is a real place for basic research around delinquency. While seemingly far removed from the rough realities of daily life, basic research eventually produces more blessings than many

of the seemingly practical suggestions of the common sense approach. Modern physics has certainly proved that there is more practical reality in some of the mathematical formulae of the theoretical physicist than the public might have expected before The Bomb was exploded. The same may be true in the social sciences.

The justice of the complaints of both the practitioner and the research expert does not rule out their working in partnership on some parts of the job. There are plenty of questions concerning practitioners in areas that right now are at a stage in which they could and should be tackled by basic research.

Assume that I am a probation officer, judge, or court worker, or that I am busy in a family service agency or child guidance clinic as a psychiatrist, psychologist, or caseworker.

Assume that I am a group worker planning a camp or club group for youngsters of high delinquency risk.

Or that I have to try to keep a bunch of restless eighth graders interested in staying in my school room.

Or that I am a parent worried about what I would have to do if Johnny started running with the wrong crowd.

What kinds of things would I need to know in order to answer the questions that arise, and how could the research people help me to know them?

In all of these instances practitioners would benefit from a much more precise description of what forms of behavior indicate a serious disturbance and what things youngsters of certain ages might be expected to do which are just part of their developmental phase and of nothing else.

I recently compiled a list of 21 research projects which could be undertaken today, with equal fascination for the basic researcher and the practitioner. They will not answer all the practitioners' questions, but some of those questions should be answered by the concerted efforts of the practitioners themselves.

Research, however, could help with such areas as these:

Decisions whether a child should have a foster home, an institution, outpatient therapy, a psychiatrist, or something else are still made on the most amazingly mystical or at least non-explicit basis. Worse, scientific lingo is amply used to disguise the fact that actually value judgments or personal preferences for traditionally accepted or rebelliously preferred treatment methods usually govern referral, intake, and exclusions.

It is time that a scientific machinery of concepts is developed which can bring order and real prognostic acuity into the whole process of placements or referrals to therapy.

Psychiatry has been inclined to be so vocal about the importance of the relationship between people that the importance of just what people *do* to influence each other has been neglected. Even if Papa loves Mary and Johnny adores Mama, just what they all do to wheedle pocket money out of each other, or just what the old man does when Mary has a tantrum, also has a lot to do with the developing pathology.

In residential therapy with delinquents, the hygienic manipulation of surface behavior becomes especially important, but the advice-giving psychiatrist is usually hampered even in out-patient work. Organized research on the effects of all influence techniques is of the utmost urgency.

Severe learning disturbances, especially in the area of reading, are a frequent concomitant of all types of problems we get under the label of delinquency. The general approach to this is too glib and either-or; either remedial teaching ought to fix up the cognitive mess while the psychiatrist fusses with the souls, or it is impossible to help youngsters learn how to learn until their basic personality disorders are taken care of.

I have a hunch there is a lot more to it, and a wide range in between. Organized research is badly needed on the inter-locking of basic pathology with cognitive disturbances, on new methods for a frontal attack in some of these areas, and even on the whole question of what is basic to what.

A few years ago in Detroit, we hired a bunch of boys to put on a "club meeting." They had a script and one boy acted out the role of the leader, and others, followers, and others disrupters in the "club meeting."

We also hired another bunch of boys to look in on this club meeting through a one-way screen and tell us what they saw.

Some of the observers saw the pecking order—how all the group was dependent on one boy. Others only saw a bunch of boys playing with a pop gun. They had no social perception of the factors involved in this group process.

We have learned that some organized delinquents betray through their amazing manipulation of people an unusual amount of social perception. They have the kind of perception that a nightclub entertainer

has to have. Their main trouble is that they make the wrong use of it. But some other youngsters simply do not know how to assess what goes on in a group and get into trouble on that account.

The studies on social perception now underway are only crude beginnings; and the general statistical studies of widely mixed perceptual issues are of no value to the practicing clinician. Investigations first need to be made into what it is relevant to study the perception of. For the treatment of children with delusional hostilities and other perceptual and conceptual distortions so frequent in the delinquent population, a concept of social perception with much higher proximity to clinical issues and group processes must be designed.

What does constitute *progress*, *improvement*, or partial or total *cure* in a therapeutic situation?

The difference between improvement that is therapeutically premature or even false and real improvement is theoretically clear, but standards for evaluation are not developed on any adequate scientific basis.

Even the very terminology and conceptual machinery needed to observe positive functioning is underdeveloped. Most people who observe a temper tantrum have no trouble describing what happens, but the observer who is confronted with a stretch of conflictless behavior in a patient usually slides back into evaluative generalities, ignoring the rich and complex processes which are making things go, and which are studied so carefully when the machinery breaks down.

An organized research attack on this is of great importance and reaches far beyond the psychiatric field.

We already know that a treatment-negative climate is produced if we expose extremely shy youngsters to youngsters who need to act out their behavior problems with unusual violence. The result in such a situation is to increase the internal problems of the shy child, who may be either frightened, or lured into behavior foreign to himself, and who inevitably will have his guilt feelings intensified.

We also know that children who steal on a fantastic basis—for instance, the kid who swipes a picture of his counselor's boy friend and buries it in the sand—cannot survive in a group of organized delinquents. In the first place, organized delinquents have too good a personnel department to let in "psychos." And if the fantastic stealer gets into such a group, he will be mercilessly exploited, even though both kinds of youngsters are thieves.

What we need to know, within extremes such as these, is which pathology gets in the way of treatment of other pathologies when treatment takes place in a group setting.

Is there a "law of optimum distance" within which it is safe to treat children with varying pathologies in groups? How do you measure this distance? What specific characteristics should we look for before a group is organized? How much do different styles of therapy, different settings, different group sizes, affect the problems of group composition?

Some games have built-in safety devices which successfully handle the kinds of internal problems that the games produce. In Three Deep, for instance, the kid who moves outside the circle, and, while there, is chased by another kid, has the protection of the circle to return to when he has had enough.

But for some children, Three Deep builds up more excitement than can be contained in the game, and the results may be disastrous. In some other games, there is no built-in device against mounting anxiety.

Some games involve choosing sides, and most children can handle the temporary antagonism that being a part of one side, opposed to another, creates. But the very anxiety of being chosen, or not chosen, is too much for some children to bear. For others, too much hostility is created when one team fights another. For children such as these a different game structure needs to be selected.

In general recreation programs, we feed games to the kids and then pick up the pieces when the group-produced hostility, anxiety, or acting-out gets out of control. In the treatment of disturbed children, we must get beyond this. We need a psychiatric estimate of the potentials and danger spots of games and other activities used. Which games have what security devices to produce what results would be part of an organized pharmacopoeia of games. Indeed, this pharmacopoeia should include programing for anything children in group treatment do during a day or a night.

What people do with or to them, what props these people rely on, what vehicles they use to communicate with each other; all these things have real impact on the balance between impulses and controls both within the patient and the patient group.

All these research projects have fairly obvious applications for the practitioner in his foxhole. Of equal validity, although of more long-range application, are two needed sets of answers in regard to personnel.

All the wonderful measuring instruments put together do not yet do the trick of testing for the specific traits that make for a good worker with disturbed children. In fact, we do not even know which brand of our own childhood neuroses predestined us to be especially good as a psychiatrist, a nurse, a group worker, or what not.

We do know that some people who work extremely well with very disturbed children very often have had a number of problems themselves, either internal or external, in growing up. Nevertheless, it would obviously be wrong to insist that people work best with unstable kids if they are unstable themselves. For there is a point beyond which one's own previous or present problems, rather than being a resource of experience to draw upon, get in our way and lure us into using the children as mops for our pathological needs.

Organized research into the question of trait syndromes and their relationship to specific professional performances in this field is still not developed. Good testing instruments for personnel selection cannot even be dreamed about without more knowledge along these lines.

Any clinical specialist suddenly thrown into the job of consultant to an institution for delinquents may have had very adequate training so far as his own specialty goes. He may still find himself way out of his depth when he is suddenly expected to develop inservice training programs for the so called "auxiliary fields."

Yet it is *he* who is asked to tell the others what they ought to know. The temptation to feed to house-parents, group leaders, attendants, and others some watered-down versions of the concepts and knowledge that were considered an important part of his own training is as widespread as it is disastrous.

An organized study of the actual training needs of people who perform specific tasks in the lives of children is a prerequisite even for the training of those who are later to train others.

Psychiatry has, for the most part, focused on the feelings, emotions and attitudes of people toward delinquency and delinquent children, figuring that little gain can be made by straight scientific knowledge unless those feelings, emotions, and attitudes can be changed.

When one is concerned with influencing larger parts of the population in the direction of wiser community planning for vulnerable children, one needs to know also what the current "thinking pattern" on the delinquency issues is of the public at large, as well as of parents, teachers, judges, and others who come in contact with them.

In order to know what facts and arguments would be most convincing, organized public opinion studies need to be made, which are specific enough to tease out concrete patterns of faulty reasoning, special areas of fact blindness, and the like. Such studies are as important for those dealing with delinquency as are those in the field of physical disease for the public health educator.

These are some of the research problems which I believe should claim our attention. Those I have listed are meant to be primarily related to issues for which the field of psychiatry has a strong affinity.

Many other equally important research issues, especially those of larger community impact not primarily psychiatrically geared, have not been touched on here for purely practical reasons.

It seems to me that the answers to any of these questions would be dear to the practitioner's heart. The answers will not come, however, merely from the practitioner's daily observations. They require a laborious detour through sheer basic research.

The Child Who Is Educationally Retarded

The problems and education of the child who is mentally retarded were discussed in Chapter Two. There are, however, many factors besides mental retardation that cause lack of success in school. Among these factors are specific disabilities in school subjects, inefficient study habits, social-emotional problems, and sensory or motor handicaps.

In this chapter we concern ourselves with retardation specifically in educational situations. The term "educationally retarded" means that the child's achievement in one or more school subjects is below what would normally be expected of a child of his intellectual capacity. Standardized intelligence and achievement tests are often used to indicate possible educational retardation.

Articles in this chapter are concerned with the diagnosis, planning, and implementation of remedial treatment of specific disabilities in the tool subjects—reading, spelling, writing, and arithmetic. Because reading is thought by some to be the most important skill in the elementary-school curriculum, relatively more attention is devoted to reading disabilities and their remediation.

Emmett Betts, who has worked for many years with children who are educationally retarded, discusses diagnosis by the case-study method. Mary C. Serra approaches the reading problem in terms of mathematical analysis of reading difficulties, while Edward L. French examines psychological factors and procedures. Edna L. Furness appraises spelling success and its basic determinants. The chapter con-

cludes with an example of an actual program for children who are educationally retarded. The reader must realize, however, that there is no standard formula for helping all such children, and that attention must be focused on each child's unique problem before a program of remedial work can be carried out.

55. Using Clinical Services in the Remedial Program *

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The following article discusses clinical services needed and techniques used with four children who had difficulty with basic school subjects, especially reading. It should be noted that all of the children have average or better-than-average intelligence quotients.

Miss Earnest, a very conscientious reading consultant, was worried. "I am at my wit's end," she began. "My master's degree in the psychology of reading prepared me to understand the needs of common corrective cases, but Johnny, Tom, Kit, and Mary have me stumped. Our school psychologist—who is tops!—tells me all of them rate 105 I. Q.'s or higher on her tests, but I can get no progress in reading! What works with the other children just won't get results with them. In spite of my efforts, they still can't read a pre-primer (2).† What do you suggest?"

Miss Earnest took her work as reading consultant seriously—attending reading conferences, keeping up her reading of professional magazines and books, and discussing the needs of her pupils with dif-

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† Numbers in parentheses refer to items in the list of references at the end of the article.

ferent professional workers. She gave a clear account of the setting in which she worked. Although there were over 900 pupils in kindergarten through twelfth grade, there was no supervision of instruction. Her only allies were a sympathetic superintendent, one cooperative school nurse who administered vision and hearing tests, and a competent administrator of psychological tests. This school psychologist covered the entire psycho-educational front, with primary responsibility for the mentally retarded. Two elementary school principals, without secretaries, were bogged down in the administration of four buildings. The junior high school principal was primarily concerned with preparing his students for the senior high school; and the senior high school principal, with preparing his students for college. Miss Earnest was not complaining about the effectiveness of her co-workers; she only wanted to know what to do for four non-readers in that setting.

In response to questioning, Miss Earnest admitted that regimented teaching was producing an excessive number of retarded readers, especially among children with normal and superior intelligence. However, she was given no opportunity to work with classroom teachers to help prevent retardation. Instead, she was dashing to half-hour corrective reading sessions in all four elementary school buildings.

A casual study of the record forms of the tests on the four non-readers revealed glaring failures on repeating digits both forward and reversed, memory for designs, rhymes, word naming (animals). Furthermore, on the vocabulary tests of intelligence, two of the boys gave "oranges are to eat" and other concrete rather than abstract responses. Upon questioning, Miss Earnest recalled that all four children had difficulty in trying to write because their sweaty hands stuck to the paper. Three of them were highly distractible. All of them were biting their finger nails.

When these facts were called to her attention, Miss Earnest exclaimed, "Now I am beginning to understand these children. Their *symptoms* were in the record and in their behavior all the time, but I didn't see them. But I don't know how to find out what is causing the symptoms or what to do about them. These must be *remedial* rather than *corrective* cases! What should I recommend to the superintendent?"

Miss Earnest came to recognize the need for clinical service—a service which gets at the cause or causes of a learning disability. She decided that four remedial cases in a population of about 900 pupils did

not justify community support for it; instead, they should be referred to a reading clinic, staffed with clinical psychologists competent to deal with learning disabilities.

When Miss Earnest's superintendent asked her to present her recommendations to the school board, she clicked with them at once. They ruled that their school system did have an obligation to find out *why* pupils are non-readers. Moreover, they ruled that both the analysis and remedial service provided by clinics to which the parents are referred should be paid for by the board of education.

An Organic Case

Nine-year-old Johnny was the first child to be admitted to the reading clinic by his parents. During the brief introductions, the clinician observed that both Johnny's and his mother's hands were wet. Both were tense and anxious, as revealed by their hurried speech, somewhat restless movements, and rigid musculature. Johnny's father, on the other hand, appeared to be deliberate and calm.

Johnny had an awkward gait and a definite head tilt to the right. His case revealed normal development of locomotion, teething, speech, etc. However, he did not have the motor coordination of his older brother and was somewhat handicapped in climbing and in playing baseball.

Screening tests revealed a vision problem, characterized by a break in near-point of convergence at twenty inches and by jerky (saccadic) rotation of the eyes. Johnny could balance himself on one foot, with his eyes closed, for only two or three seconds. Somewhat awkwardly, he did the heel-to-toe test of walking backward and forward. However, when blindfolded he could not point to the third finger of the right hand when it was stroked with a camel's hair brush. These and other indicators (3) of organicity were confirmed by a neurological examination, including an electroencephalogram (7).

On an informal word recognition test (4), Johnny identified *the, a, I*, but he did not know *mother, and, said* and other common words in pre-primers. He was able to identify not one word common to primers. On the informal reading inventory, of course, he was unable to read a pre-primer.

Johnny was able to repeat three digits forward and two reversed.

On a special test of memory for designs his drawings were somewhat compressed and he had extreme difficulty with angles, rotating the paper in his attempts to reproduce a design. On a test of "central" laterality, he consistently reversed with the right hand. He was unable to do the double-alternation test of concept formation.

In spite of his inability to cope with certain items on Form M of the Binet, Johnny achieved an I. Q. of 112. On the WISC he had a most irregular profile.

Johnny was easily frustrated. His arm and facial muscles were as taut as a fiddle string and became even tighter when attempting to work with words or digit symbols.

In analyzing Johnny's needs, the clinician at once set up the hypothesis that he might be brain injured. After positive evidence of brain injury was obtained, he had to determine whether the organicity contributed to the learning disability either directly or indirectly. (For example, it may be cortical or subcortical.) When this relationship had been established, he gave additional tests to determine whether the condition interfered with word perception and/or concept formation. In Johnny's case, there was positive evidence of interference only with the perception of printed words rather than with concept formation.

An Anxiety Case

Ten-year-old Kit was the second boy brought to the clinic by Miss Earnest and the parents. His hands were cold and wet, and his finger nails had been chewed to the quick. He had a tic in the right eyelid and made unusual grimaces. He was, however, friendly and quite accessible.

Kit had been slow in learning to talk but appeared to have developed normally in many other respects. After he had started second grade, he began to wet the bed at night. Following an operation for "crossed eyes," his teacher had held his head to force him to hold the book at the "right" distance and to prevent head movement. Reading had become a horrible experience.

On an informal word recognition inventory Kit began to make errors at the primer level and was unable to identify any words at the second-reader level. The informal reading inventory demonstrated that he could read neither a pre-primer nor a primer. By drilling on his spelling at home and school, he had memorized enough words to make a

score of 48% on grade two words and 8% on grade three words. Of course, he couldn't use them for writing because that wasn't the purpose of his memorizing them.

Each day Kit's teacher sent home fifth-grade spelling words to be memorized. Not knowing that Kit could *learn* to spell easily only those words which were in his reading vocabulary, his mother denied him all television and play privileges until he had tried. Kit objected, cried, and avoided these sessions by many other withdrawal actions. In the process, he became hostile towards his mother and the school.

Before going to school, Kit had been a very relaxed child with many friends. Even now he enjoyed playing baseball and seemed to be relaxed while doing so. But he had lost some of his friends because they had made fun of him when he couldn't learn to read.

At the time of the analysis, Kit was tense. He became somewhat more relaxed as the clinician gradually put him at ease during the vision, hearing, and neurological screening tests. However, when he was presented with word recognition, word learning, or reading tests, he became very tense. His restlessness was reflected in jiggling the handles on the drawers of the test table, tapping a pencil, twisting his feet and body, and looking for extraneous things to attend to.

On tests of word learning, information, and the like, Kit was apprehensive. He would ask, "Is that right?" Or, "Am I doing all right?" On a vocabulary test he would say, "I don't know!" on an easy item and respond quickly and correctly on a more difficult one.

On Form M of the Binet, Kit made an I. Q. score of 119—after his test scores were prorated to eliminate dissected sentences, Minkus completion, and other items requiring reading ability. On the WISC his performance score was significantly higher than his verbal score. On an informal hearing comprehension test he was able to recall and to discuss material at the seventh- and eighth-grade levels.

On the intelligence tests, Kit showed a wide scatter. His digit span score was age 8 for digits forward and age 6 for digits reverse. He revealed rich and fast associations in the Jaederholm Association Test. He had no difficulty in associating rhyming words. But he made very low scores on the word-like sub-tests of the Gates Associative Learning Tests.

There were no indicators of organicity in Kit's case but there was much evidence of anxiety. The subsequent use of association, Bender-

Gestalt, Thematic Apperception, and other projective techniques did not reveal extensive psychopathology.

In analyzing Kit's needs, the clinician set up the hypothesis that he demonstrated anxiety. After positive evidence of anxiety was obtained, he had to decide whether Kit's anxiety was a cause or a symptom of reading disability. In Kit's case, he concluded that anxiety was now a part of the clinical picture and that it now contributed to his learning disability. Additional tests showed that the deficit was greater in attention than concentration—that word learning rather than concept formation was involved (8).

To demonstrate the use of a tactile technique for word learning, words selected by Kit were used. However, Kit could not get himself integrated for the smooth and rhythmical tracing of the two-syllable word he selected. At this point, Kit and his parents were given systematic help with suggestive relaxation (5, 9). After about forty minutes, Kit had the basic concept of relaxation—at least enough to transfer to the tactile learning of his word. After learning five words in which he was interested—one of them was *chocolate!*—Kit, his parents, and Miss Earnest were convinced that he could learn to read. But equally important, they had insight regarding his needs which required more than mere reading instruction.

Other Types of Cases

Tom was eight years old when Miss Earnest and his parents brought him to the clinic. An analysis of his needs revealed both hearing and vision handicaps which had not been detected by the school nurse. He had considerable loss of hearing in the speech range and was unable to pass the rhyming word test of the Binet. He was suppressing the vision in his left eye and had a break in near-point of convergence at eight inches and a recovery at seven inches.

On Form M of the Binet, Tom's I. Q. was 105. His hearing comprehension was at the third-reader level, where he had no difficulty with the concepts.

Tom, too, had some symptoms of anxiety, but not to the degree that Johnny and Kit had. His hands were sweaty and he was somewhat tense. However, he could relax easily except when confronted with a book!

Tom was referred to a vision specialist who did the necessary visual training before remedial reading was started. He was also referred to an otologist who could not improve the hearing but recommended periodic rechecks.

Seven-year-old Mary was the last of Miss Earnest's pupils to be studied. She had been a tense, highly distractible child before entering school. In spite of her Binet I. Q. of 132, she had not learned to read.

An analysis of Mary's needs revealed (1) almost a complete lack of understanding on the part of her mother and (2) a teacher who had dragged her entire first-grade class through pre-primers, primers, and first readers—at the same rate (i. e., the teacher's rate). When Mary's situation was straightened out, she responded rapidly to remedial instruction.

Analyzing the reading needs of Johnny, Tom, Kit, and Mary is a relatively clearcut undertaking. Briefly, the analysis embraces (1) a survey of interests, (2) an evaluation of achievement in the use of phonics and other word learning skills, and (3) a study of the ability to think in different types of reading situations.

Why an individual either cannot read or is having extreme difficulty in learning to read is another matter (1). Some individuals have undetected brain injuries which may contribute grossly or subtly to a learning disability. In other instances, spasticity, epilepsy, and other diagnosed pathology may be involved. When organicity exists, the personality may not function effectively in an abstract learning situation. Hence, the services of both a neurologist and a clinical psychologist who understands language disturbances are required.

Another group of cases may fall into the general category of the "emotionally disturbed." These are the children who are not secure in their relationships with others, who internalize the aspirations and anxieties of their parents, siblings, and teachers, and who sometimes have to adjust to maladjustment in school. That is, they have unresolved—and often hopeless—conflicts. Often their tension state represents a benign psychological and/or a somatic overaction to a specific situation, such as a reading disability. Sometimes, their tensions may be only a part of a group of other symptoms of difficulty. Occasionally, these tensions may be either the forerunner of pathology

or the symptoms of existing pathology. Certainly no teacher—remedial or classroom—can justify labeling as “emotionally disturbed” all children with learning disabilities (6).

Anxiety, therefore, may be causal or associated with a learning disability. What causes the anxiety is a problem for the clinical psychologist and/or psychiatrist who *works parsimoniously* to identify significant patterns of behavior, who verifies *interpretation* by direct observation, and who draws a *diagnostic* conclusion as a basis for therapy. Mild anxieties may be cleared through the use of appropriate remedial procedures. Other types of anxieties may call for studies by a specialist in internal medicine as well as by a psychologist and/or psychiatrist.

For many reasons, vision specialists often are called for consultation. A competent specialist may be needed to identify the type of squint and its relationship to a reading disability. Another vision specialist may be needed to analyze and correct interferences in accommodative-convergence relationships, especially for near-point, or book-reading, distances. Still another vision specialist may be needed to evaluate visual fields and other aspects of the psycho-neurology of vision.

Access to otological and endocrinological services is occasionally needed. While these services are not needed frequently, they are essential in certain crucial cases.

With few exceptions, the parents and a school representative observe most of the testing. When the clinician is an experienced demonstrator, the test situation is informal and informative.

Usually much of the clinician's time is saved by obtaining (1) information beforehand from the parents and (2) complete records of all psychological, educational, and medical tests.

The Follow-Up

One of the important steps in the follow-up is the reduction of the child's anxiety:

1. The clinician demonstrates to the child that he can learn to read and how he can learn to read. This sometimes overlooked step is ever so important to the child who has given up hope.
2. The child may be taken out of the school situation in which

his frustrations have been compounded. But he must be taken out of an unhealthy climate and put in a healthy one.

3. The child and his parents and his remedial teacher are taught suggestive relaxation before remedial reading is undertaken. This relaxation is continued in each remedial reading session.

4. Special needs—such as visual and emotional—are cared for either before or during remedial instruction, depending upon the recommendation of the specialist. In some cases, however, the remedial reading is used as supportive therapy.

5. Special word-learning techniques are taught. How and when these are used depends upon *why* they are recommended.

6. Since these non-readers and retarded readers have not learned to *think* in a reading situation, special attention is given to these skills from the beginning of instruction.

7. Since the basic interests of non-readers reflect considerable maturity as contrasted to their written-language skills, special attention is given to the selection of topics bearing on their interests. Furthermore, high-level interest and low-level readability books are used as soon as possible (1).

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56. Reading Retardation: Analysis and Differentiated Instruction *

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How retarded must a child's reading be to warrant recommending remedial procedures? How can children who need remedial work be located? Mary C. Serra suggests some of the primary characteristics of the "remedial reader" as well as methods of measuring reading retardation.

As a preliminary to any discussion of reading retardation, there should be some agreement as to the term *reading*. The nature of reading may be summarized as follows: First, reading is only *one* aid to learning. Aids to learning fall on a continuum from direct to vicarious experiences. Reading may be classified as an abstract learning aid. Many times reading may be over-emphasized as a means of learning. Second, since reading is one means of communication, it is not a subject but a social tool that should be developed in social situations. Third, reading is one *facet* of language, not an isolated fragment of language. Oral language facility is a prerequisite to reading instruction. Before systematic instruction is initiated in reading, a child should have a speaking vocabulary of at least 2500 words. Writing activities should be introduced only after a child has acquired a speaking vocabulary of about five thousand words and a reading vocabulary of about three to four hundred words. Fourth, reading is more than the ability to pronounce words rhythmically; it is the process of reconstructing the facts, or experience, behind the symbols. Words or symbols have no meaning in themselves; meaning exists in language experience relationships. In summary, reading is

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an abstract stage in the sequence of language development in which the child learns in a social setting that meaning exists in the relationship between the printed symbol and experience.

Reading Retardation

Retardation in reading is a much discussed, but generally misunderstood, problem. In many instances, "slow learners," children with language deficiencies or meager experiences, and pupils having an associative learning disability are all classified as remedial readers. Few attempts are made to determine the cause of the retardation or to provide reading instruction based on the disability. Pupils with all types of reading difficulties are said to be retarded in reading, and the same spray-gun prescription is given to all.

RETARDATION IN "SLOW LEARNERS." Far too often, there is a tendency to confuse general mental retardation with reading retardation. In the past, remedial reading programs were designed for "slow learners." In spite of available data on the limited mental capacities of candidates for remedial reading programs, attempts were made to bring these children up to some arbitrarily established grade average. The usual results from such programs were frustrated students and instructors.

The mentally-handicapped child should not be expected to participate in reading programs designed for his peers who may be retarded in reading but are of normal or superior intelligence. A reading program for the mentally retarded should be concerned with the present needs of the child and should anticipate his vocational needs.

RETARDATION IN CHILDREN WITH "AVERAGE" OR SUPERIOR INTELLIGENCE. Research has indicated that reading retardation exists at all levels of intelligence. Two types of general reading disabilities are recognized. In the first type is that individual who is retarded in reading because of a deficiency in language skills or experience. In fact, the reading retardation which is found in the child who has a meager experiential background but who can read rhythmically is the most difficult retardation to detect. A check on comprehension, however, usually reveals that the child's understanding of the material he reads is small. This type of case is generally referred to as a verbalizer. Included in the second type of reading problem is that individual

whose hearing comprehension exceeds his visual, or reading, comprehension. This individual has considerable difficulty in associating the printed symbol with meaning.

MEASURING RETARDATION. In many school systems standardized tests are the only means for measuring the extent of reading retardation. Using the results of standardized tests, the examiner determines the retardation by subtracting the grade level as established by the tests from the grade in which the subject is placed according to his chronological age. In a clinical situation, however, several methods are used to determine the extent of retardation. Standardized tests, informal tests, and reading formulas are employed to determine retardation.

Standardized Tests. Any good standardized reading test has its place in a modern reading program and may be used to supplement the informal reading inventories to establish the amount of retardation. Standardized tests may be used to compare the achievement of an individual with national norms, as well as to compare the achievement of the individual with his capacity for achievement. It should be remembered, however, that standardized tests may rate a pupil from one to four grades above his actual achievement level. This last statement is especially valid for retarded readers.

Informal Reading Inventories. Probably one of the most direct and effective means of appraising the reading levels and determining reading retardation is the informal reading inventory. By using a graded series of reading materials, the examiner may observe responses in a more nearly normal type of reading situation than the standardized test provides. With this informal measure, it is possible to estimate the independent, instructional, frustration, and hearing-comprehension levels of the child. Hearing comprehension is determined by the examiner's reading to the subject at successively higher levels. Hearing comprehension provides a satisfactory index to reading capacity. The difference between instructional level and hearing-comprehension level provides the examiner with the extent of reading retardation that exists in the child having trouble with reading.

Reading Formulas. Reading formulas are employed to determine the amount of reading retardation that exists in cases coming to the Reading Laboratory for an analysis of their reading disabilities. Ernest

Horn and Marion Monroe have constructed reading formulas. Horn¹ has designed a formula to express the individual's grade of achievement in reading and his level of mental attainment. The quotient is the reading age of the individual divided by the average of two times the mental age plus the chronological age and may be stated as follows:

$$\text{Reading Quotient} = \frac{\text{R.A.}}{(2\text{M.A.} + \text{C.A.}) \div 3}$$

In order to establish the amount of retardation in reading, Marion Monroe² has developed a formula for computing a "reading index." This is obtained by comparing the child's reading age as established by the composite reading grade that he makes with his average chronological, mental, and arithmetic age, the latter two of which are determined by testing. The formula may be stated:

$$\text{Reading Index} = \frac{\text{R.A.}}{(\text{C.A.} + \text{M.A.} + \text{A.A.}) \div 3}$$

In terms of the formula presented above, a retarded reader would have a reading index less than 1.00. A pupil with reading achievement in excess of expectancy would have a reading index greater than 1.00. Monroe believes that children who have obtained indices below .80 may be unable to become adjusted without corrective instruction.

Differentiated Reading Programs

Three types of reading programs have been generally accepted: developmental, corrective, and remedial. There is no sharp line of demarcation between developmental and corrective reading, or between corrective and remedial reading. The different types of reading should be discussed in terms of a continuum.

DEVELOPMENTAL READING. Developmental reading is a term used to indicate the type of program required for the majority of learners in the elementary and secondary schools and colleges. Developmental

¹ Ernest Horn, "Language and Meaning," *The Psychology of Learning* (The University of Chicago Press, 1942), ch. 11.

² Marion Monroe, *Children Who Cannot Read* (The University of Chicago Press, 1932), p. 191.

readers have achieved a level of competence commensurate with their needs. Their reading attainment is equivalent to their experience achievement. Their achievement in reading is about the same as their capacity for reading. These individuals have made satisfactory adjustment to the school situation. Reading instruction in developmental cases follows ordinary classroom procedures.

CORRECTIVE READING. Corrective reading is a term used to indicate the type of reading program required for retarded readers who do not have an associative learning disability. In general, such readers present two types of corrective problems and fall into two categories: those having language skill deficiencies and those having meager experiences. The most easily detected type of corrective reading problem is the pupil having the inability to pronounce words. This language skill deficiency is usually accompanied by a number of symptoms: finger-pointing, vocalization, insertions, regressions, tensions, and the like. Inadequacies and faulty habits of this type may be corrected by initiating systematic reading instruction based on the learner's needs. Once the subject's instructional reading level has been estimated, systematic instruction in needed word recognition skills is initiated.

Another type of corrective reader is the verbalizer. This individual's language facility out-runs his background of basic experiences. He may pronounce words with unusual facility. He may read with rhythm, but he can not reconstruct the experience behind the symbols. For him, language is empty of meaning. For this type of corrective reader, many direct experiences should be provided in order to develop concepts necessary for him to understand the material he is reading. This type of reading retardation may be corrected in a classroom situation.

REMEDIAL READING. Reading is a process of association. Two phenomena are involved: language and experience. Associations between the two provide impetus for most learning situations. When the reader is unable to make appropriate associations between the printed symbols and experience, the subject is referred to as a remedial reading case or dyslexia.

Characteristics of the Remedial Reader. Remedial readers experience unusual difficulty in the establishment and retention of read-

ing skills, especially when the usual classroom technique, the visual-auditory approach is used. They are individuals who appear to have "learned a lot today and completely forgotten it before tomorrow." The following are some of the primary characteristics of a remedial reader:

1. Non-verbal intelligence tends to be significantly higher than verbal intelligence.
2. Visual-auditory associative learning tends to be higher than visual-visual.
3. Visual discrimination for word forms tends to be of a low order.
4. Hearing comprehension is significantly higher than visual or reading comprehension.
5. Auditory memory span tends to be relatively higher than visual memory span.
6. Memory for related materials tends to be relatively higher than memory for unrelated materials.
7. Oral re-reading tends to be arrhythmic as was the oral reading at sight.
8. "Central" dominance tends to be confused.

Function of the Reading Laboratory. All remedial reading cases are not alike. Dyslexia may be best described in terms of a continuum, from very mild to very extreme cases. Less than one per cent of the total school population may be classified as remedial reading cases. The remedial reader or dyslexia should be considered a "Laboratory" case. At the laboratory, the subject is given a complete reading analysis to determine the individual's disabilities and specific needs. From the findings of the analysis, a differentiated reading program is planned to provide for the needs of the individual.

Analysis of Reading Problems. A reading disability is an individual thing. To analyze the causes of the disability, a series of standardized and informal tests are administered to the subject; the child and his environment are investigated. Included in the reading analysis are tests designed to answer the following questions concerning the subject: Is he ready for systematic guidance in reading? What is his

capacity for reading? What is his present level of achievement? Is he handicapped by visual inefficiency or by a hearing impairment? Is he able to associate the printed symbol with meaning? How well does he retain materials presented to him? Is his memory span adequate?

Instructional and Psychological Approaches. The reading analysis affords a basis for determining the instructional and psychological approaches to be used with the remedial reading case. The instructional approach usually recommended for remedial readers is an experience approach. The use of the experience approach follows a principle basic to teaching: going from the known to the unknown. The reading vocabulary is obtained from the child's speaking vocabulary. The basal reader may be introduced after the child has acquired an initial reading vocabulary.

The psychological basis for remedial instruction depends upon the nature of the problem. The program must be especially well planned, for with most disabilities, "negative emotions" have already been developed. Because the child has already been negatively conditioned toward reading, it is very necessary for him to achieve success. The more extreme the problem is, the more difficulty the child has in associating meaning with the visual symbol. In these extreme cases, immediate success is imperative. The visual-auditory-kinaesthetic-tactile method³ recommended for children with extreme reading problems consistently appears to give them initial and continued success.

Summary

The following are the salient points considered in this discussion:

1. Reading is a process of reconstructing the facts (experience) behind the symbols.
2. When achievement in reading falls below hearing comprehension, reading retardation exists.
3. Reading retardation may be a result of inferior mental ability, language skill deficiency, meager experiences, or an associative-learning disability.
4. The three different types of reading programs are developmental, corrective, and remedial.

³ Grace M. Fernald, *Remedial Techniques in Basic School Subjects* (McGraw, 1943), pp. 35-55.

5. With a minimum of additional preparation, an elementary school teacher can deal effectively with corrective reading cases.

6. Remedial reading cases should be referred to reading laboratories for analysis and correction of reading disabilities.

57. Psychological Factors in Cases of Reading Difficulties *

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The following article suggests three important areas to be covered in a psychological examination of a child referred because of reading difficulties. The author also describes some of the various psychological tests commonly used in evaluating children who are educationally retarded.

The individual is a physical organism, functioning in a social environment, in a psychological manner. Reading, being a complex process of the total individual, may involve any or all of these aspects.

Psychological diagnosis must take into consideration such factors as visual and auditory acuity, motor integrity, nutritional and endocrinological factors, school attendance, educational conditions, bilingual situations, and subcultural environments.

The interrelatedness of all factors is now accepted doctrine, stemming from the concept of learning as a dynamic process. Although some of the tremendous quantity of research on reading disabilities has been based on a restricted philosophy of reading as a specific educational area, we invariably find ourselves focusing our attention on the complexity of the process, with the response being of the total, whole individual.

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Psychological factors which may be of etiological moment in cases of reading disability can be grouped in three areas: intellectual, perceptual, and emotional.

Language conceptualization and symbolization are intellectual processes. Although physical, physiological, social, perceptual, and emotional factors may act to inhibit or distort these processes, there must be a basis of potentially adequate intellectual functioning.

In psychological diagnosis, an obtained I.Q. has proven of sometimes uncertain value. It is many years since we first became aware of the dangers of equating intelligence and reading ability, and of using reading tests as measures of intelligence. The difficulties of obtaining a valid measure of intellectual potential without contamination by language ability are particularly striking in cases of aphasia. They are less obvious, and hence more insidious, in cases in which the language disability is of a less severe degree. Doll (3)¹ points out that all tests of capacity, such as intelligence tests, are, in fact, tests of performance from which the capacities are inferred. This inference must be made through complete clinical integration of special assets or disabilities which might favor or inhibit intellectual expression.

Therefore, it is not sufficient to administer an individual—even a *theoretically* non-language—intelligence test, and assume that the resulting score is necessarily valid. Full exploration of the receptive and expressive avenues is necessary. Children have been falsely diagnosed as mentally deficient on the basis of an invalid Stanford-Binet, when the root of the problem lay, not in a lowered *potential*, but in an inhibited *expression* due to, for instance, high frequency hearing loss, or an impairment of visual-motor perception, or even an unrecognized reading disability. Intellectual expression is rather frequently inhibited by dynamic factors. At Devereux Schools many children are encountered who show a striking increase in intellectual functioning as, through environmental therapy and psychotherapy, their emotional problems are alleviated.

In brief, a low I.Q., accompanied by low reading achievement, may not be cause and effect, but may, instead, be an indication of a common possibly *remediable* condition. Estimates of reading ex-

¹ Numbers in parentheses refer to items in the list of references at the end of the article.

pectancy, therefore, based on an I.Q. score without proper clinical interpretation, can be not only misleading but disastrous.

But, even at best, the I.Q. or the M.A., although perhaps valid in itself, gives only an *average*—a point of reference—and will not, without further analysis, give an *intellectual pattern*, which can well be crucial to an understanding of the child's reading disability.

Intelligence cannot properly be conceived of as a single, unitary function. Certain more or less specific intellectual abilities have been differentiated. Thurstone (13), by means of multiple factor analysis techniques, has isolated several cognitive functions which he terms "Primary Mental Abilities." Among these are an inductive factor, deductive factor, a spatial factor, a memory factor, a word factor, and a perceptual factor.

These factors are not isolated, unrelated functions, but, like all aspects of personality, are dynamic. However, intelligence can be measured meaningfully only through the various aspects of these abilities. Thus, many of our more recent intelligence tests are constructed so that specific intellectual functions are differentiated. Thurstone, for instance, has translated his experimental findings into "The Primary Mental Abilities Tests" (14).

One of the most commonly used individual intelligence tests is the Wechsler-Bellevue (16). In this, there is a gross differentiation into verbal and non-verbal so that a verbal I.Q., a performance I.Q., and a total I.Q. are obtained. In addition, each gross area includes specific subtests, each involving rationally determined, more or less specific intellectual abilities. This principle has recently been extended to a lower age range in the Wechsler Intelligence Scale for Children (17).

The "specific" intellectual deficits which may be obscured in a total I.Q., but which may be meaningful in an analysis of a reading disability, are those involved in conceptualization and symbolic thinking. It is of particular interest to note, for those tempted to equate a verbal I.Q. and language ability, that several tasks included by Wechsler in the Non-Verbal portion of his scale are actually more closely related to language development than are some of the Verbal section. Included among these are the Block Design subtest, which involves analytic-synthetic abilities, and the Symbol Substitution subtest, which necessitates an ability to deal with symbols.

Hence, careful psychological evaluation of a child with reading disability must include analysis of the individual's general level of intellectual functioning, with due consideration being given to inhibiting or distorting factors. In addition, we must examine the child's intellectual pattern—those assets and disabilities which are inherent in the obtained I.Q. or M.A.

Intellectual pattern analysis has been of some significance in recent research on the brain-injured child. Striking differences in performance have been demonstrated between "endogenous," or hereditary and "exogenous," or brain-injured mentally deficient, even though I.Q.'s and M.A.'s may be comparable. Test performance of the hereditary group shows little intra-test variability, while the brain-injured show wide scatter among specific abilities.

The question of brain-damage may be of some importance in analysis of reading disabilities. Although brain injury may cause severe general retardation, in some cases the overall functioning of the child may be at a normal level, but with specific deficits, occasionally involving language directly, as in aphasia, but more often indirectly. By this it is meant that such consequences of brain-damage as laterality confusion, or visual-motor perceptual defects, may seriously impede language acquisition.

Motor incoördination is a common indicator of possible organic damage. In any case where there is a suspicion of organicity, thorough neurological and psychological examinations are indicated.

The second general area of psychological diagnosis is that of perception. By this is meant not the sensory reception of a stimulus, but the organization of stimuli into a meaningful whole, according to Gestalt principles. A response occasioned by a stimulus does not end with the nervous activity of the brain area directly connected with the sense organs but must involve the entire brain. In other words, the whole brain must have efficient functional integration for the competent acquisition of a total language function.

It is clinically clear that some children experience considerable difficulty in developing stability at the highest level of perceptual organization—that of completing and maintaining a linguistic Gestalt. Clues to this inability are frequently observable in simpler perceptual behavior.

In the psychological clinic there are many techniques for in-

investigating the visual-motor perceptual function; that is, the organization of visually perceived Gestalten and the translation of these into motor performance. Best known of these is the Bender-Gestalt Test (2) in which the child is required to copy certain Gestalt figures. Fabian (5) has found that retarded readers tend to distort the figures as they are copied. It would appear that in these children there is a greater tendency to alter visually perceived Gestalten to maturationally earlier forms. In most children, the ability to maintain the integrity of visual organizations develops naturally. If, however, there is a delay in this maturational process, the implications for reading become quite apparent. For example, the tendency to alter horizontal perceptions to the vertical is possibly related to Orton's strephosymbolia (10); that is, the reversal of words and letters.

Visual perception is not the only perceptual area to be investigated. Auditory perceptual and kinesthetic perceptual weaknesses are less readily diagnosed, although probably of considerable significance. From a study by French (6), it appears that organization of kinesthetic stimuli are of significance in the reading process. The results of this study indicated that retarded readers were unable to perceive kinesthetic cues, so that these cues could become integrated into a general associative complex leading to word recognition.

The clinical picture of a reading disability is a weakness in maintaining consistency in the recognition and recall of the associative combination of the discrete letter orders in words. It is apparent that integrated visual, auditory, and kinesthetic perceptions must be present for normal language development.

Confused laterality and unestablished cerebral dominance are possibly of significance in perceptual disorders, not only in the visual area, but also in the auditory and kinesthetic. Psychological evaluation, therefore, should include laterality appraisal. There is great need, however, for more accurate and valid measurement techniques.

Gates (7) estimates that approximately 75% of children with reading disabilities also show emotional problems. Other writers have estimated the percentage to be even higher. In Robinson's study (11), social and emotional factors stood highest in the list of causes—they were considered to be primary in over 60% of the cases.

We generally assume a theory of multiple causation for reading failures; this does not imply, however, that all the causative factors

have the same weight or occur with the same frequency. The experience of many workers has led to the opinion that consideration of the emotional status of the child is of primary importance, whether the emotional disturbance be cause or effect.

We are all familiar with the great cause-and-effect controversy in this area. There are those who maintain that the frustrations and anxieties resulting from failure in a learning situation are at the root of the emotional disturbance; there are those who maintain that the failure is the inevitable consequence of infantile neurotic patterns which pre-date school experiences.

There is, however, a third possibility which is often overlooked—that the two may stem from a common underlying cause. As Bannon (1) has pointed out, aniseikonia, for instance, may be causative to both reading disability *and* emotional disorder. In a similar manner, visual-motor perceptual defect, as well as other perceptual or intellectual phenomena, may have both academic and dynamic significance.

There is no doubt that emotional instability and reading failure are so closely interwoven, particularly at the late elementary and secondary level, that there is difficulty in unraveling the cause-and-effect relationship. That academic failure and the attendant frustration can result in serious dynamic disturbances is indisputable. It is also indisputable that emotional infantilism and childhood neurotic patterns can seriously inhibit the learning process. And it is clear that one reinforces the other in the form of a very vicious cycle indeed.

However, regardless of cause or effect, we must be alert to the nature of the emotional disturbance, because of the frequent necessity for repairing a damaged personality before learning can take place.

In etiology and diagnosis, the following quotation from Fabian (4) is of extreme significance: "Reading disability is an ego disability. No specific conflict situation or dynamism is alone responsible for ego disability. The existence of multiple psychopathological patterns needs to be emphasized because of the danger that the psychological factors may be too narrowly defined. Reading disability is a psychoeducational disorder. As is the case in psychosomatic disorders, there is no constant pathognomonic profile."

The diagnostic problem, then, is one of recognizing the underlying psychopathology of which the reading disability is a symptom. It may be accompanied by other, rather obvious symptoms, such as uncon-

trolled aggression, withdrawal, "daydreaming," distractibility, etc. Or the defense pattern may be sufficiently strong as to succeed in hiding, to any but experienced eyes, the dynamic disturbance. But, unfortunately, the severity of the disturbance cannot be judged in terms of the obviousness of the symptoms. Complete, thorough psychological and psychiatric examinations in persistent cases of reading disability are necessary to determine the nature of the ego malfunctioning.

Many factors can interfere with the establishment of normal object relationships and thus interfere with learning. One of the most common is emotional rejection or emotional deprivation. Rejection, as we know, can take very subtle forms. It can, for instance, be of the overcompensatory type, in which the parent, because of his own guilt, showers the child with material goods, yet denies him real human warmth and affection.

We are familiar with the child whose resistance to reading is a direct expression of hostility to an ambitious mother; or who has found it impossible to compete with the father's glorified statements of how successful he used to be in school, and so has retired from the field of battle; or who has developed defenses against comparison with a more capable sibling; or who is attempting to identify with the parent who reports, "I was always poor at reading." We all know the overprotective mother, whose child, because of his infantile dependency, has never been permitted to develop normal interpersonal relationships.

But there are more subtle factors. For instance, Vorhaus (15) has described the child who, through the very acceptance given him, develops a fear of rejection, so that he must justify to himself his worthiness for acceptance and security. Vorhaus has phrased this well: "He sees it as a conditional acceptance which depends on the degree to which he can fulfill expectations. Since it is a loving and a 'good' home, the child early identifies with it. Hostility and oppositionalism have no place in so favorable an environment. The child's aspirations therefore coincide with his parents'. The home is not only ambitious for him—he approves the standards and to the best of his knowledge and belief, wants to fit the pattern and play the expected role. The trouble lies not with his conscious efforts but with his unconscious resistance: (The fact that actually this resistance is often occasioned by a misunderstanding or misinterpretation of parental attitudes and their implications does not make the problem less acute)."

The results of this conflict are found in the repression of the child's own personality drives into a passive, submissive behavior pattern. Growing up—that is, learning to read as a symbol of growing up—implies continued repression; and hence there develops an unconscious block against academic progress. It is important to recognize that the resistance is at the unconscious level. Consciously, the child may express a strong desire to succeed.

Excessive repression of aggressive drives, and the resultant passive, feminine infantile patterns of behavior denote a weak ego structure which is incapable of dealing adequately with the external reality of a learning situation. In psychoanalytic terms, oral and anal regression, sibling rivalry, and the oedipal struggle all have their effect on learning as a dynamic process.

The teacher of today no longer regards passivity as laziness, or negativism as willful "badness," but instead regards them in their true light as mechanisms of the unconscious, methods of attempting to deal with the unbearable, of escaping from the inescapable. She understands that the child develops a fantasy life only when it is more pleasant than reality, and she recognizes the introverted, withdrawn child as possibly a more serious problem than the hostile aggressive child.

But the teacher cannot make a psychiatric diagnosis. She might recognize the fact that "something is wrong" and refer the child for psychiatric and psychological evaluation. A persistent reading disability is one symptom which may, and should, lead to this referral.

Psychological diagnosis will include the use of what are termed "projective techniques"—that is, devices for the analysis of personality through the projection into ambiguous materials of the individual's unconscious motives, attitudes, fears, and wishes.

One of the most common of these techniques is the Rorschach (12), or ink blot test, in which the patient is required to tell what he sees in a series of ink blots. The responses are entirely individual. There are no right or wrong answers. From what the individual sees, and from the way in which he sees it, personality diagnoses may be made.

Another projective technique, the Thematic Apperception Test (9), or TAT, asks the patient to make up a story about each of a series of pictures.

Both of these techniques, and others, have been used in studies of reading disabilities, and have shown, almost without exception, infantile, dependent, insecure personalities. Many diagnoses indicate

the need for the child to receive *psychotherapy* preceding or concurrent with remedial reading therapy, in order to break through the resistances and integrate the ego so that learning might take place. Conversely, if the reading therapist understands the dynamics, remedial reading can aid emotional rehabilitation.

One might assume that it is necessary to examine emotional factors only in severe cases of reading disability. This is not necessarily so. More or less severe emotional disturbances may be related in any manner to reading disabilities of varied degrees of severity.

Reading problems at the secondary level obviously have their origins in the early grades. Considerable attention, in recent years, has been given to reading readiness. We have gone a little beyond the concept of a mental age of six as the prerequisite for reading instruction, but our steps in this direction are still rather feeble. For example, how often do we consider the child's laterality status, even though Gesell and Ames (8) have shown that laterality is often not established until the age of eight or even later? Do we test the child's visual-motor perception? Do we examine the oedipal situation? What of sibling rivalry? Is the child's social and emotional maturity up to his mental maturity?

Reading problems will continue to be with us until we cease exposing all children in the first grade to reading instruction. Better we would postpone all formal reading instruction until 7, 8 or even 9 years of age—ideally until the *individual child* is fully ready in all the physiological and psychological prerequisites.

In summary, it is believed that psychological diagnosis of a reading disability should consider the physical organism and the cultural milieu in which that organism functions. Intellectual measurement must be qualitatively interpreted, bearing in mind that many factors might be operating to inhibit or distort intellectual expression. Careful analysis of the intellectual pattern must consider that *specific* intellectual disabilities might be operative.

Perceptual factors—visual, auditory, and kinesthetic—should be investigated, as contributing to the ability of the child to organize and maintain Gestalten.

Of particular significance are the emotional factors, which can be associated with reading disabilities as cause or effect or as concomitant conditions. In any case, full understanding must precede treatment. One method of investigation is through psychological evaluation by means of projective techniques.

All of the above factors are closely interwoven in the total personality of the child, with optimal personality integration being necessary for optimal learning.

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58. Psychological Determinants of Spelling Success *

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We turn now to another area of the language arts, spelling. The following selection, a psychological analysis of spelling, will aid the teacher in her appraisal of spelling difficulties.

The ability to spell is a part of one's facility in the use of language or what is sometimes called "verbal expression." This ability seems to be contingent upon two processes, recognition and reproduction. A child's early attempt at verbalization is in meaningless babble. He makes sounds and noises, and eventually develops muscles which make it possible for him to speak. Soon he begins to understand what people say to him, his first comprehensions being on a purely emotional basis; that is, the tone of the voice, the manner of speaking. In this early stage the child begins to imitate and to utter meaningful sounds which little by little assume the proportions of what we call language (20, p. 237).¹

In a later stage, the child recognizes pictures, letters, and numbers, but they have no meaning for him. At the same time he produces very crude scrawls and symbols of his own. These efforts at reproduction, combined with his visual recognition, are soon transformed into visual perceptions. In other words, the symbols begin to take on meaning; and we say the child is learning to read or to interpret written symbols. Simultaneously, he is becoming print conscious, and he is learning to write. Although some authorities would debate the issue, careful observation indicates that the writing precedes the reading. In other

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¹ Numbers in parentheses refer to items in the references at the end of the article.

words, the young learner writes the symbols and then begins to comprehend what they mean. After engaging in these activities which we designate as "reading" and "writing," the child is called upon to reproduce from memory some of these meaningful symbols. He is being introduced, at the behest of adults of course, to the necessity for spelling (20, p. 237).

Experimental psychology now conceives reading and spelling to be not single, unitary processes but a number of activities highly integrated. Fluent reading or spelling are, as Gates says, like the smooth flow of power from an automobile; they are the result of a complex organization of delicate mechanisms that must coordinate perfectly. Defects or deficiencies of any part of the mechanisms may disturb, impede, or even completely inhibit normal activity. However, if the total function is understood, and if the mechanism is kept in perfect running order, troubles may be prevented or remedied; and high spelling efficiency may be the result (10, p. 433).

The science of biology constitutes the basis of spelling method. Our knowledge of word forms, like all other knowledge, comes to us through the senses. We learn to spell by seeing the letters of a given word or by hearing the sounds and by writing and speaking the letters in the order in which they are seen and heard. Seeing and hearing, obviously, are forms of "impression." Writing and speaking are forms of "expression." Hence, impression and expression form the bases of four kinds of images (a) the sight of a word, (b) the sound of a word, (c) the way it "feels" when written, and (d) the way it "feels" when spoken (1, pp. 176-177; 21, p. 109).

Spelling is primarily a sensori-motor habit; like any other habit of this kind, it is acquired by repeated motor reaction to certain sensory stimuli (3, p. 480). This leads us then to a consideration of one elusive factor in spelling which continues to baffle psychologists and teachers; i.e., imagery. Now, some persons tend to get visual images, that is, they picture experiences that they recall. Some people receive no visual images at all or very dim ones. Some of the latter individuals remember impressions in terms of sound, getting what we call auditory images. Still others would remember impressions in terms of their own physical movements. In case of a word or phrase, individuals in the last group would recall the symbol or symbols in terms of lip and throat movement or the movement of the hand in writing the word (6, p. 182).

Other than knowing that different types of imagery exist—visual, auditory, and kinesthetic—and that various perception areas lead to the formation of images, we know little about their influence. It is possible, some authorities state, that facility in calling up mental images of words is a determinant in differentiating between good and poor spellers (19, p. 281).

Many educational authorities have agreed that intelligence or mental ability is a "potent factor in the genesis of poor spelling." However, intelligence does not explain all cases of good or of poor spelling. As a general rule, pupils who score extremely low on intelligence tests tend to have difficulty in the learning of school subjects, while those making high scores on such tests tend to have less difficulty. This holds for spelling as well as for reading or other subjects. However, the relationship between intelligence and spelling ability is much lower than that found between intelligence and most other school subjects (2, p. 272).

It is of interest to note that Spache examined the literature and located fifty-seven correlations which had been worked out between spelling and intelligence. He found the median correlation to be .44. Some of the correlations, he notes, were as low as .08. This means that "there are many poor spellers who are average or above average in mental ability and vice versa" (18, p. 568).

Studies have been made showing that poor spellers are not lower in median intelligence than are samples from the general population. For example, in a study which he made, Russell (17) found that the average IQ of poor spellers was 101. In McGovney's study, students had IQ's ranging from 111 to 126 as measured by the Stanford-Binet (14, p. 146). Palmer made a study, finding that the good spellers had an average intelligence of 125, while the poor spellers had an average intelligence of 118 (16, p. 150).

Marked differences in degree have been found to exist between bright and dull students in kind as well as in number of spelling errors, the bright showing a greater tendency to err with respect to single letters, and the dull with groups of letters.

Carroll found that "phonetic generalization is the dominating factor in the psychology of the differences in degree in the kinds of spelling errors made by bright and dull." The bright pupil, possessing excellent ability in translating sounds into letters, "makes those mis-

takes which would quite naturally result from the varied phonetic qualities of the English language." On the other hand, the dull pupil makes those errors which have little if any phonetic foundation (5, p. 499).

Garry Cleveland Myers maintains that poor spellers are not born, that they are made (15, p. 40). He would look first to the eyes and ears of the child who cannot spell; then, if any physical defect is found, he would examine the child's emotional reactions. Myers states, "Most poor spellers of average mentality are in that condition because of emotional reactions." Never having acquired satisfactory ways of learning to spell, they have encountered so many difficulties, made so many mistakes, and met with so many discouragements on account of their failures in spelling that unhappy emotions are always aroused in them by the spelling process. Often the poor speller believes "that he will never be able to spell and this belief is too frequently confirmed by the comments of his parents, teachers, and classmates" (15, p. 40).

The older and farther on in the grades the poor speller is, the more his discouragements over spelling difficulties become, since he has more written work to do, has made more failures, and has felt increasingly more self-condemnation. The harder, then, has become the problem of helping him to succeed (15, p. 40).

Deeply conditioned emotional attitudes are difficult to uncondition but there is ample evidence that it can be done. The psychological formula for doing it is to provide "practice with satisfaction." After a time, a new set of attitudes will replace the old undesirable ones (2, p. 274). By leading the pupil to work diligently on words that he can succeed in mastering, the teacher can rapidly build up the pupil's confidence. As the pupil grows convinced that he can spell a few words without mistakes, he can gain assurance that he can learn eventually to spell more words and more difficult words.

After imagery, intelligence, interests and emotions have been considered, there still remains the possibility that failure to learn to spell is due wholly or partially to the pupil's inclinations or temperamental traits—indifference, carelessness, distaste for intellectual drudgery (11, p. 27; 12, p. 131). Impetuous children, those who are untidy or careless of detail, have trouble, whereas neat, particular children do better in spelling. Nervous and hypersensitive children, who have never been accustomed to meeting exacting requirements of any sort, also are frequently disinclined to work until perfection is achieved.

Spelling may be comparatively difficult for quick learners who can express their thoughts well orally, but who find written work extremely tedious, odious, or onerous.

Intellectual inertia and carelessness are probably the most common causes of spelling handicaps, especially among poor spellers with high IQ's. These causes may be corrected in many instances by emphasis on correct spelling by all teachers at all levels, with insistence that the older children use the dictionary for spelling and meaning.

Some authorities have studied the spelling ability and disability among educated adults. A British educator, Fred J. Schonell, finds that neither general intelligence nor age is significant; he finds that specific experiential and temperamental factors are important in determining spelling accuracy. Failure in spelling in childhood, he considers, plays an important part in the attitudes of adults towards spelling standards. General disregard for details, feeling of inferiority over spelling weakness, loss of confidence, apathy toward one's failure, and rationalization of spelling weaknesses have their beginnings in early failures. Schonell would therefore like to place the blame for spelling failures so that correction can take place before failure affects the individual's progress (4, p. 43).

Spelling, in particular, offers a field for the study of what may be called consciousness of correctness as distinguished from conscience, or the desire for correctness. To be a good speller, a student must first feel a kind of compulsion for correct written expression, which means the development of what is commonly called "spelling conscience." If this spelling conscience fails to develop, all other efforts at teaching spelling are futile. It is quite possible to have pupils in a class who can give perfect performances on memorized word lists and yet go on spelling atrociously in their verbal productions. The first objective, then, in teaching spelling is not to make youngsters perfect in the reproduction of lists of words found in a common spelling book, but to give them a desire to spell correctly with a suitable technique for gaining this end (20, p. 237).

Still, in many life situations it is important to know whether one is performing his task correctly or incorrectly. More than conscience is needed to insure the satisfactory achievement of many tasks. Society demands not less than 100 per cent accuracy in spelling, yet few people are likely to learn all the words they may, from time to time, add to

their writing or speaking vocabulary. It is as desirable to know when one should use the dictionary as it is to have a large vocabulary of words which one can spell accurately without resort to a reference book, as it is to be willing to consult a dictionary (13, p. 355).

We have to distinguish, as Tidyman says (22, p. 89), between the knowledge of correct spelling (consciousness) and the desire to spell correctly (conscience). In accordance with this distinction, Lull recommends that pupils be instructed, in writing words from dictation, to indicate the words the spelling of which they are in doubt, and that, in scoring, they be allowed credit for the words they correctly doubt as well as for those that they misspell (13, p. 359).

The learning of spelling supposes opportunity, ability, and desire; it also supposes incentives to practice in order to achieve objectives. Intrinsic motivation is not effective. The social and business values of spelling are too remote to impel elementary school pupils to devote the necessary effort to this subject. As a matter of fact, it is commonly alleged that spelling instruction tolerates passive attitudes. Games, competitions, records of the progress of individuals and groups, are all devices for the stimulation of the effort necessary to learn spelling and other subjects. The skillful management of incentives is unquestionably more important than techniques of instruction; however, all advantages should be accumulated if the training provided is to develop spelling ability (9, p. 366).

Withal, we may say that research tells us that psychological determinants of spelling success are imagery, intelligence, interests and emotions, inclinations or temperamental traits, and incentives. By all means, the idea of prompt appraisal of spelling difficulty is supported so that remedial instruction may be utilized before the pupil is psychologically handicapped by the results of failure.

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59. Results of a Program of Remedial Education *

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The articles in this chapter have discussed various techniques for helping children with educational deficiencies in the language arts. The following selection is an account of a concentrated six-week program of remedial education in all areas of the elementary academic curriculum which utilized many of the methods previously discussed.

This study reports the short-range results of applying a "total-push" approach to remedial education carried out at the Clinical School of the University of California at Los Angeles. Two interrelated considerations were prominent in its inception: (1) the increasing interest in, and consequent stress being placed upon, remedial education and

TABLE 1
Data on Pupils Selected for Study

	Mean	Range
Age	12.6 years	8-16 years
Intelligence quotient	110	90-134
School retardation	2.1 years	1.6-3.4 years

(2) an appraisal of the value of an integrated bio-psycho-socio approach to this educational problem.

Ten boys and ten girls between the ages of eight and sixteen years were included in the present study. Each pupil was selected after a thorough diagnostic evaluation, which included medical, psychological,

* Reprinted from the *Elementary School Journal*, 54: 454-458, April 1953, with the permission of James C. Coleman and The University of Chicago Press.

and sociological data. For admission to the remedial program, the pupil had to meet the following criteria: (1) an intelligence quotient of 90 or above; (2) freedom from disabling physical or emotional handicaps; (3) failure in his regular school placement, with retardation of one and one-half years or more in educational achievement; and (4) fulfillment of residence, tuition, and related requirements necessary for his registration and daily attendance at the Clinical School.

For the twenty pupils selected, pertinent data are shown in Table 1. In the initial screening the Stanford-Binet test and the Wechsler Intelligence Scale for Children were heavily relied upon for assessing intellectual capacity; the Stanford Achievement Test for educational achievement; the Children's Apperception Test, the Rorschach, and interview and case-history information for ascertaining emotional adjustment. A detailed questionnaire was utilized in parent interviews for obtaining information relating to the child's home and general life situation. Special tests devised in the Clinical School were utilized for making detailed analyses of specific educational difficulties.

On admission, the pupil was placed in one of two classrooms of ten pupils each. Each classroom had a regular full-time remedial teacher, as well as four part-time student teachers to assist the regular teacher. The classrooms were under the general supervision of the clinical supervisor of the school. Part-time recreational leaders handled the athletic-game activities during the fifteen-minute midmorning break. The classes met from 9 to 12 A.M., Monday through Friday, for six weeks in the summer.

Detailed reports were made by each student teacher on his work with given pupils, and these reports were then discussed in a group session under the supervision of the regular classroom teacher. Periodic progress checks were made on all pupils, and revisions in remedial procedures were undertaken when indicated. At the end of the 6-week period, all pupils were retested for educational achievement and other factors which seemed important in assessing changes or progress made.

The essential feature of the methods of instruction employed in the remedial classes was individualization of all procedures to meet the needs of the particular child. Within this general framework, the procedure included:

1. *Creation of a favorable learning atmosphere.* A number of related factors were involved here: (a) establishment of good pupil-teacher

and pupil-group rapport; (b) removal of competition between class members and substitution of competition with the individual's own record; (c) provision of success experiences by introduction of methods (for example, tracing in learning new words) by which a child could learn.

2. *Creation of a need to learn.* Concerted efforts were directed toward making the learning situations and materials as meaningful as possible in relation to the child's interests, experiences, and everyday needs.

In a general way, creation of a favorable learning atmosphere and of a need to learn encouraged the reactivation of the child's normal tendencies toward exploration (reality testing) and self-development, which had typically been discouraged by repeated failure in the school situation or by insecurities and emotional difficulties in the home, or by both.

3. *Filling in weaknesses and gaps in the pupil's educational background.* Since successful education involves progressive structuring of subject material, the aim of filling in weaknesses and gaps necessitated a detailed diagnosis of reading, arithmetic, and other basic skills and the beginning of remedial instruction at a point where the child's previous learning was sufficient to enable him to succeed. It was necessary that such early material seem meaningful to the child rather than appear as just another hopeless beginning with easy and relatively meaningless subject matter.

4. *Remedial work as an approach to the whole person.* The remedial situation was treated as a total life-situation, inviting the growth and development of the whole person. Emphasis was placed on re-establishing shattered self-confidence, on social interaction and adjustment to the group, on creative self-expression through such activities as finger painting, on motor skills and coordination, on techniques for communicating with other persons, and on ways of coping with his problems that would give the child feelings of adequacy and make the world seem a more meaningful and secure place.

5. *Integration of home environment with school program.* Every attempt was made, via parent conferences and discussions, to alleviate any home conditions which were interfering with the child's learning and to substitute positive, enriching experiences conducive to security and self-development. This positive substitution included also matters

of diet, rest, and exercise and the provision of interesting and enriching experiences, such as going to circuses and zoos, and taking week-end trips to scenic and historically significant places.

6. *Specific remedial techniques.* In general, the remedial methods outlined by Fernald were followed.¹ Reading was taught by means of the experiential method, in which the child writes stories on topics meaningful to him in the light of his interests and experiences. In severe cases of reading disability the kinesthetic, or tracing, method was utilized. For more advanced pupils, tachistoscopic and pacing devices were extensively used for improving reading skills. When drill was necessary in any subject field, it was introduced in a game situation which was both enjoyable and meaningful to the student. For the development of concepts, as in various phases of arithmetic or the rules of grammar, varied concrete experiences (for example, playing store) were utilized in helping the child to develop his own generalizations and abstractions. Audio-visual aids were heavily relied upon in arithmetic, as well as in other subject areas. For all subject matter the general sequence of learning was (a) creation of need, (b) concrete experiences, (c) concept development, and (d) application in meaningful problem situations.

7. *Keeping child up with his classes.* Insofar as possible, the work of each child paralleled that of the public school, and every attempt was made to bring the child up to grade level and to insure his ability to function satisfactorily in his regular school.

The present results include findings with respect to the causes of educational difficulties and educational and personality improvement or changes.

The initial diagnostic material and subsequent classroom evaluations yielded the following breakdown of causes of school retardation in this group of twenty pupils.

Unsuitable teaching methods. Typically, the use of the wrong teaching methods involved the beginning of reading instruction before the appropriate readiness level was reached, the utilization of exclusively visual and verbal methods of instruction, and similar factors, which resulted in the child's getting behind and hopelessly lost. This category included eight pupils.

Disturbing home situation. This classification included parental re-

¹ Grace M. Fernald, *Remedial Techniques in Basic School Subjects* (McGraw, 1943).

jection; overpermissiveness to the point where the child felt insecure; overly high parental expectations for the child, so that his actual accomplishments were never acceptable; parental tension and bickering; and broken homes. These conditions were often aggravated by sibling rivalry. This group included seven students.

Illness, absence from school, and frequent changes of school. The net result of these conditions was a disruption in the child's normal educational program both intellectually and socially. Three students were included in this category.

Miscellaneous factors. This category included one pupil for whom the causes of educational difficulty were not ascertainable and one pupil who, in spite of a serious personality maladjustment of a deep-seated nature, slipped through the screening examination.

This classification by no means covers all the causes of educational difficulties, since medical factors, special brain defects, and severe personality disturbances were, in general, ruled out in this group by the screening examinations. This categorization must also be considered as highly tentative, since the determination of causes in such cases is a difficult and often inaccurate undertaking. Initial causes which got the child off to a slow start may have been cleared up. Similarly, apparent causes may not be the real causes. In addition, more than one of the factors mentioned were found to be operative in several individuals, but the child was listed in the category which seemed to be of the most etiological significance in his particular case.

Changes in achievement-test scores are summarized in Table 2 for the areas covered in this study. In interpreting these results, it is important to relate them to the probable progress that would have been made by these children in their regular classrooms for a six-week period. In the light of their previous performance, there would have been an expected mean gain of approximately 0.15 of a grade in educational achievement as compared to a total mean improvement of 0.8 of a grade made in the present study. Only one child in the group failed to improve appreciably, and this was considered to be due to a deep emotional disturbance which impaired his ability to concentrate and function effectively in the school situation. Although there was a tendency for the girls and for the brightest pupils to improve the most, these findings were not statistically significant. It may also be pointed out

that these results were obtained during a summer session, not the most desirable time for remedial work.

TABLE 2

Improvement in Basic School Subjects

SUBJECT	GAIN IN GRADE SCORE	
	Mean	Range
Reading	0.7	0.0-1.8
Language usage	.8	.1-2.7
Literature	.8	.0-3.1
Arithmetic	1.2	.1-3.4
Social studies	.9	.1-1.8
Elementary science	.5	.0-1.5
Spelling	0.9	0.2-2.5
All subjects	0.8	0.0-3.4

Although it is difficult to measure personality changes or to be sure that they are due to the remedial school situation rather than to certain changes taking place in the child's home or general life situation, the evaluations of the student teachers and of the regular teachers emphasized some of the following changes.

Development of favorable attitude toward a learning situation. The most usual and obvious change here was a reconditioning of the child's negative emotional conditioning to a learning situation. During the initial diagnostic session, twelve of the children expressed an active dislike for school and eight others were indifferent. None expressed a liking for school. At the end of their first month of remedial work, twelve of the children expressed a liking for the Clinical School. At the end of the six-week session, only three children expressed indifference to the Clinical School situation and none an active dislike. Several of the parents expressed their surprise that, for the first time, their child enjoyed learning and was actually disappointed when the summer session was terminated.

Increased self-confidence. Marked improvement in the child's feelings of security in the school situation were indicated by his decreasing dependence on the teacher, his active and independent work on various class or individual projects, and his ability to tolerate mild competition and occasional failures without feeling unduly devaluated.

Reduction in hostility and deviant behavior. Although some of the children tended to discharge their hostilities and tensions in emotional blowups and fights during the early phases of the remedial program, this behavior gradually ceased, and, except for the fights initiated by one boy who still remained emotionally disturbed, co-operation and give-and-take within a normal framework of occasional rough-and-tumble play became dominant patterns. This situation was accompanied by a much more friendly and relaxed class atmosphere, which tended to minimize the occasional differences of opinion and outbursts characteristic of children of this age. In addition, damage to property (as in the restrooms) and similar types of destructive behavior practically disappeared after the first two weeks of remedial work.

Increased self-expression and growth. With increasing self-confidence and better motivation toward learning, these children who were formerly educational failures and negatively conditioned to classroom learning become active participants in their regular school subjects, in expressive activities, such as story-writing and finger painting, and in various projects and social activities.

The over-all behavioral changes were from those of failure, frustration, inferiority, and dislike of school toward self-confidence and intellectual and emotional growth. Of course, not every pupil changed radically, but it was felt that at least sixteen showed substantial progress in personality growth and adjustment. Neither were the results all that might have been hoped for in every case, for it was often impossible to do much about unfavorable home conditions or other negative factors. However, enough changes were effected in the pupils' total life adjustment so that the ensuing mental and emotional changes were encouraging.

Summary

This article reports the results of a six-week "total-push" approach to remedial education with a group of twenty pupils who were severely retarded in their school progress. All but two of these children were considered to be within a normal range in mental, emotional, and physical makeup. The main findings were:

1. Educational retardation was found to result primarily from

(a) unsuitable teaching methods; (b) disturbing home conditions; and (c) frequent absence from, or changes of, school.

2. The total mean improvement in achievement-test scores covering seven subject areas was 0.8 of a grade—approximately five times the improvement to be expected had the pupils remained in their regular schools for the same period.

3. Favorable personality changes were noted in most of the pupils.

4. A "total-push" approach to the intellectual and emotional rehabilitation of educationally retarded children was highly effective, despite limitations of facilities and personnel.

The Child with a Cultural Handicap

Children with cultural handicaps are often omitted from considerations of exceptional children. However, children who are born in other countries and immigrate to the United States, children from minority racial and ethnic groups, and children of migrant workers may have difficulty in adjusting to the traditional American school program. In many cases, the school environment differs radically from that which they have been accustomed to.

Children with cultural handicaps may pose unique problems for the school administrator and teacher. It is often difficult, for example, to relate the classroom work of the child to his everyday life. The school psychologist is faced with a similar predicament when he tries to establish the intellectual, emotional, and perceptual competence of culturally handicapped youth by conventional psychological tests. Often, he is forced to resort to a "culturally fair" instrument or adapt one of the widely used tests.

An important consideration in work with the child from a culturally *deprived* background is that of the social-psychological problems he may have to face. Too often such children have deep feelings of inadequacy, engendered by the rejection of their peers and their marginal status in American society.

It is often very difficult for professional people to understand the culturally deprived child, for example a Mexican or lower-class Negro, because the child's behavior is viewed from a middle-class vantage point. It is therefore highly important for the person who works with groups

such as those discussed in this chapter to make an effort to understand the cultural influences and community conditions impinging on the lives of the children they serve. Only then can teachers make valid assumptions concerning the feelings, motivations, and problems of a child from a culturally deprived environment.

One important group of culturally handicapped children, especially in urban areas, is that of the foreign-born. No selection on this subject has been included in this text, but, to give the student an idea of the services provided for foreign-born children in one school system, the editors quote from the Detroit Public Schools publication, *Special Education for the Handicapped*:

Special classes are established for foreign born children recently arrived in this country, whose language difficulties prevent regular class placement. They are given intensified language training so as to learn to speak, read, and write English in the shortest possible time and then to join regular school grade groups.

These classes have been part of the Detroit Public Schools for many years; the first class was organized in 1911. Some years later, the teaching techniques were standardized and teachers were trained in special methods. At present there are 12 teachers and approximately 300 pupils.

When a foreign born child who cannot speak or understand English reports to his neighborhood school, he is referred to the nearest school having a special foreign children's class. Children usually remain a full year in the special classes, although some need a longer training period. The school principal in consultation with the special teacher releases the pupil when he has learned enough English to adjust to the regular grades. Achievement tests are given as a basis for grade level placement.

Some of the pupils enter these classes with almost no formal education, while others have completed the equivalent of our high school in their native countries. The teachers have developed many interesting ways and means of teaching English, and the pupils are inquisitive and eager to learn. New words are carefully developed at the chalkboard for meaning and proper pronunciation. Immediate desk practice with paper and pencil fixes the new language concepts. During conversation and oral reading, correct pronunciation is emphasized. When silent reading is done, both oral and written tests are given in order to check comprehension. Such

subjects as arithmetic and social studies may be used as a vehicle for teaching English. The program is augmented by pictures and illustrations and trips to various points of interest. The pupils participate in some of the regular grade classes, such as health education, music, and auditorium. Taking part in school activities provides a natural means for the foreign born children to learn American ways and is an incentive for speaking English.¹

The first reading in this chapter, by Evelyn D. Adlerblum, presents an overview of the problems of culturally handicapped children. Kenneth B. Clark, who has conducted studies in the social psychology of prejudice, looks at the factors that create adjustment difficulties for rejected minority group children. His article also presents ideas on how parents and teachers can help the culturally handicapped child understand his racial, religious, or ethnic differences.

Because the educational and psychological problems of the American Indian child are often overlooked in discussions of culturally handicapped youth, the editors have included the article by Aleta Brownlee, of the Bureau of Indian Affairs, to introduce the reader to this small but significant minority group. "Teaching American Children From Spanish-Speaking Homes," by Simon Chavez and Twila Lee Erickson, is a useful article for those who are now working, or who may some day work, with the Spanish-speaking minority group. The chapter's final reading, "Effects of Migrancy on Schooling," by Shirley E. Greene, discusses family mobility and the educational handicaps it imposes on the children of transient families.

¹ Anna M. Engle, and Paul H. Voelker, *Special Education for Handicapped Children* (Detroit Public Schools, Department of Special Education, Publication No. 387, 1954), 30-31.

60. Social Differences among Children *

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The schools are frequently confronted with sociological problems resulting from social differences among their pupils. Evelyn D. Adlerblum discusses some of these problems as they relate to children with working parents, children in desegregated schools, children from migrant families, and children from foreign countries.

In a nation whose economy is as extensive and dynamic as ours, social changes are always at work. Since these changes affect families, they naturally come through in children and are brought into the classrooms. Teachers, therefore, are involved constantly in a state of sociological problem solving.

We have learned that the more we understand of the way an individual child lives with his family and community, the more skillfully we can teach him. In general, children who have families with comfortable homes, secure incomes, and a favorable attitude toward schools have an easier time in adjusting to school than those who experience deprivation in money, education, and community standing. With this assumption, let us look at several current conditions and consider what they probably mean to the children who feel them.

Children with Working Mothers

Today there is a large and growing group of mothers who work outside their homes. They do it for different reasons. During the last 50 years our national standard of living has risen sharply, and the num-

* Reprinted and edited from *Childhood Education*, 32: 214-218, January 1956, with the permission of the Association of Childhood Education International, 1200 Fifteenth St., N.W., Washington, D.C., and Evelyn D. Adlerblum.

ber of Americans experiencing middle-class living has more than doubled. Many mothers of this class prefer to work in order to give their families more material comforts, education, and leisure.

Other mothers of the lower socio-economic group work of necessity, to help their husbands earn a mere subsistence income when living costs are at an all-time peak. This is especially true of migrant and foreign-born families. Also, the increase in numbers of divorces makes a difference. Since more than one-sixth of our children come from broken homes, many more women are supporting their children. In looking at a child it is important to understand why his mother works.

What do we see among children whose mothers work because of family need? Many seem to lack the home touch of mothering care. Teachers often find such a child hurried off to school with his hair uncombed, his clothing untidy or even soiled. And there are times when a youngster who has a cold or incipient childhood disease is sent to school, when he ought to be kept home in bed. But the mother's job is important and there may be nobody to stay with him at home. Often a mother looks to a school for more custodial help—to accept her child earlier in the morning or to keep him later, until her day's work is over.

And what of the children's feelings? As always, there are many who ride with the tide and show no ill effects. Some are even precociously self-reliant. Mariana, at the age of 8, gets breakfast for her two younger sisters, dresses, combs them, and gets them to nursery school before she arrives at her own class in the morning. Of course, some mornings she is late. And when a little sister is ill she stays home to nurse her. Her attendance record shows this.

Among younger children, however, we see many who reach out for additional mothering from their teacher. They seek her approval, follow her about, clinging, sometimes whimpering—hungering for extra fondling and reassurance. Other children,*pushed about by hurried, tense handling at home, carry over to their teachers the resentment they feel and do not necessarily understand. Yet, their need is also for warmth, understanding, and mothering.

Working mothers are seldom available for conferences during school hours. A teacher who believes it is important to support a child of this group by sharing findings with his mother will have to think toward home visits, and toward an occasional evening for individual or small group conferences.

Desegregation of Schools

The national effort to open all public schools to all children, regardless of skin color, cannot be accomplished quickly or smoothly. Human beings will need time to deal with old fears and judgments. They will require time to communicate, experiment, and weigh their new attempts. And the pace with which Negro and white children move on to emotional maturity and trust will partly depend upon the quality of understanding teachers give at this sensitive time. Different communities change at different rates—some moving more quickly than many others.

Children of both ethnic groups are understandably defensive. Many Negro children are self-conscious. Some are shy, overly-conforming, and huddle together in cliques for companionship. Unsure of their reception, they will need to feel consistent acceptance over a period of time before they become natural and trustful in school.

All children reflect the feelings and values of their parents. In many cases we are expecting white children to take the stress of new social growth in contradiction to their homes and families. We look to them for fresh vision. True, children can change more readily than adults; but they cannot do it quickly or without support. Their change will be uneven, characterized by times of unconscious condescension, volatile flare-ups of old feelings, and withdrawal. Only a teacher who can accept the change himself is able to help children accept it, for the teacher's basic attitudes are communicated in many subtle, natural ways. It is up to a teacher to sense when particular children are ready to work together, to develop techniques of group work, and to deal with concerns of parents.

Migrant Children

We are now beginning to make solid progress in relieving the social and educational underprivileges of migrant families. As these families, engaged in seasonal agricultural occupations or temporary industrial jobs, move in and out of communities, their children move in and out of schools. Generally, their school attendance has in the past been irregular, with frequent absences and poor learning adjustment.

It is a tribute to the inner strength of these children and to their family solidarity that they get along as well as they do. For their social

underpinning has been weak. Because their families have had no property in any community, they have had no real status. Regarded as unsubstantial, even vagrant, neither migrant parents nor children have felt wanted. Today, in states from California and Texas to Minnesota and New York, citizens are coming to see that the families who harvest their crops and help their economy deserve good housing, health services, schools, and personal acceptance.

What of the classroom picture? Migrant children are often lonely and need friends. They have no regular neighbors and friends to steady them. Since many are economically deprived, their clothing and cleanliness habits show this. Because they are not in school for long, consecutive periods, they do not learn as much as others, and their achievement is often retarded. This hurts their standing with other children.

Schools can help these children through providing bus service, hot lunches, and additional help in skill subjects. Teachers can transmit their respect for them by valuing their travel experiences, encouraging discussion, and weaving them into group life. In some cases they may ask them to keep travel scrapbooks to be shared when they return the next year.

Foreign-Born Children

A child who comes into a school from a foreign culture brings more than a strange language with him. He brings the many influences of that other land and its history. In addition, he often brings self-consciousness about the difference he feels between the old and the new.

For example, many Puerto Rican families have been coming here recently. Although they are citizens of this nation, Puerto Ricans are a Spanish people essentially. In New York City, the entire school system is working on the best ways to teach these children. The immediate concern is to develop a communicative English vocabulary. It is also necessary for teachers to know what to expect of these children in terms of their insular history.

The life of most Puerto Ricans has been agrarian, economically poor, and very slow-paced. There has been little incentive for competition. Children, then, are unhurried and do not have our drive for organization, promptness, or competitiveness. They do have emotional qualities of warmth, sensitivity, and trustfulness. These may be either

guided toward more complex group living or be displaced into self-consciousness and resentment.

These children are often shy, affectionate, and quick to enjoy humor. They enjoy music, rhythm, color, and nature. Their feeling toward their parents is strong and respectful of authority, reflecting also their predominantly Catholic religious ties. Since educational opportunities have been limited until recently, schools are respected but not readily understood by many parents. Also, physical underprivilege and malnutrition leave their mark in children's poor growth and limited resistance to infection.

Teachers who understand such aspects of a foreign-born child's life can shape their expectations accordingly. They can do intercultural teaching, utilizing the music, stories, customs, and values of the old culture to lead to the new with self-respect and appreciation. They can also make a place for parents to observe and enjoy the school, and to become a part of its associations.

The children just described—those with working mothers, others involved in school desegregation, the migrants, and newcomers from other lands—are not exceptional or odd. Their needs are those of all children. It is only because special currents have swept through their lives, that their feelings of security and acceptance are more threatened. We can help them:

We can inform ourselves about their ways of living and modify our expectations.

We can show our acceptance of them by making a place for their experiences and feelings in discussion, written work, the manipulative arts, music, and group structures.

We can plan ways of communicating with their parents through personal messages, visits, parties, and other informal channels. We can try to keep ourselves aware of social changes and ready to deal with human problems as teachers of children, untainted by arbitrary judgements.

61. Rejected Minority-Group Children *

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What are the effects of prejudice on personality development? How should parents answer children's queries about their racial, religious, or nationality differences? Kenneth B. Clark discusses these and other topics concerning minority-group children. The information presented in this article should alert teachers to the problems created by prejudice and should also give them ideas about how to answer children's questions.

The problem of the harmful effects of rejected minority status upon the personality development of children is one that must be dealt with effectively by enlightened parents, educators, and workers in the field of child welfare. The responsibility rests chiefly on the parents.

The author recently made a study designed to determine and to integrate the evidence on the effects of prejudice and discrimination on children in America today. The evidence strongly suggests that among minority-group children—children of minority races, religions, and some national backgrounds—are found not only subjective feelings of inferiority, loss of self-esteem, ambivalent attitudes toward their own group, but also patterns of overt behavior which seem to result from an inferior and rejected status. This behavior takes the form of direct or indirect hostility; aggressiveness toward individuals of the dominant group, other minority groups, or one's own group; compensatory and exhibitionistic patterns; withdrawal and submissive, defensive and repressive, and other general patterns of behavior indicating racial hypersensitivity. These personality patterns seem to be formed early—by six or seven years of age.

* Reprinted and edited from *Child Study*, 28: 11-24, Spring 1951, with the permission of Kenneth B. Clark and the Child Study Association. The original title of the article was, "How to Protect Children against Prejudice."

At the same time, there is no evidence that a particular personality pattern or distortion exists among all children of a given minority group, nor is it the same for children of different minorities. There are variations in the type of adjustment which a particular individual makes to minority status. These variations seem to be related to such factors as economic and social position of the family, stability of the family pattern, security of the child within the family setting, intensity of in-group feeling, and at present, to unclear individual differences in basic personality structure, intelligence, aptitudes, and general abilities.

The fundamental factor that determines the various manifestations of adjustment problems among children of rejected minority groups appears to be a rather deep-seated feeling of personal inadequacy. Basic self-esteem is lost or impaired. The reason for this is not difficult to understand. These youngsters learn from their neighborhoods, from schools and organizations, from magazines, books, radio, television, movies, that they and their group have been relegated to an inferior and humiliating role. As they become aware of this fact, they tend to accept it. They tend also to accept the social status assigned to them as a valid indication of their personal value—unless this impression is corrected by equally powerful forces.

Self-respect is essential to the dignity and integrity of every human being. Minority-group parents have a responsibility and an obligation to their children over and beyond that of other parents. It is up to them to counteract the negative social forces that tend to rob their children of self-esteem.

If they are going to assure their children of the minimum essentials for a healthy personality, they must provide them with the basic warmth, love, sympathetic understanding, and guidance which have been found so necessary to all children. These children need to know that their parents love and want them for their own sakes. This seems to be the basic cornerstone for the building of a healthy personality in these children; they cannot feel that they are of value unless they are given indications within the intimate family unit that they are valued.

A climate conducive to positive valuation of the self can be established only within the context of frank and honest appraisal of a child's abilities and of the immediate situation within which he is required to function. In the sympathetic guidance of the child, it seems essential to help him to achieve a sense of personal worth based upon actual ac-

complishment. Then he can learn to meet, accept, and overcome challenges. He can acquire a self-confidence that mere verbalizing will not produce. An over-protected minority-group child—one who is isolated from realities by misdirected good intentions of parents who believe that insulating him from problems of realities is to his future welfare—is robbed of the experiences necessary to the building of a solid sense of the integrity of the self.

At this point, a word of caution appears necessary. It is most important that the aspirations of parents for their children be realistic as well as challenging. Standards of performance should be geared to a child's level of development, his intelligence and actual abilities. Presented with premature or too difficult goals, a child may develop a sense of personal failure. This can reinforce his inferiority feelings to such a degree that they become imbedded in his personality. Minority-group children, like other children, sometimes react to unrealistic pressure by withdrawal, resignation, a generalized lowering of aspirational level, or open rebellion.

On the other hand, if the goals are not challenging enough or if extravagant praise is given for normal achievements, a child may develop grandiose ideas of personal worth, a tendency toward a self-overvaluation, compensating and exhibitionistic patterns of behavior. While these patterns may be indulged by unrealistic, overprotective parents in the home, they interfere with normal adjustment of the child outside the home; they sometimes lead to rejection by his peers. It is reasonable to assume that such rejection intensifies the feelings of personal inadequacy; it may cause the child to become increasingly aggressive as he struggles desperately for the acceptance that his own behavior continues to deny him.

Normal young children in the American culture have real questions concerning their racial identity and the value and status assigned to their group. At an early age, minority-group children are thrown into a fundamental conflict between their normal desire for self-esteem and society's negative evaluation of them. A child may have negative or ambivalent feelings about his own skin color or religion or national background.

Responsible parents do not evade, minimize, or exaggerate the child's problems of this kind, but face them in a forthright manner. A child who is old enough to ask questions concerning racial, religious,

and nationality problems is old enough to receive honest and appropriate answers. If the child is different in religion, skin color, or cultural background, nothing can be gained by telling him that he is not different or that all people are alike. He has, after all, perceived a difference. It is realistic to tell him that human beings do differ in their beliefs, in their appearance, in the way they do things, and that this is natural and desirable.

Children also ask questions about the inferior status assigned to other people of different colors and religions and backgrounds. These questions, too, require honest answers. "Yes, people are treated differently, and for unimportant reasons. Sometimes because their skin's a different color, or they haven't as much money as other people, or they go to a different church. This is called prejudice. It's *wrong* and *unfair* to treat people unkindly for such reasons, and to say mean things to them and about them. And also it is not democratic."

Such a frank statement of an elementary truth is one of the child's first lessons in social ethics. In addition, it can reassure him; it can help him realize that he is not to blame when people hate him for characteristics over which he has no control. He can be helped to understand and to feel that such hatred is not a sign of his inferiority. With understanding guidance, he can come to realize that prejudice is a sign of something inadequate in those people who have it and that it can be changed.

An older child can learn that prejudice is not always the fault of the people who hate, that they themselves are victims because they were taught to hate. This fact suggests that in the future such people may be taught a more positive way of getting along with others. This, however, may be too abstract an idea for younger children to grasp.

It may seem somewhat dogmatic to state that under no circumstances should the child be permitted to use his minority status as an excuse for undesirable personal characteristics. This statement, however, seems necessary, and must be emphasized. Hiding behind the undesirable realities of prejudice and discrimination as a shield for personal inadequacy is unfortunately no less common among minority-group members than is the companion pattern of a prejudiced person hiding his personal inferiorities behind his prejudices. These patterns may have their beginning in later childhood or in adolescence. By dealing with them openly and directly when they first appear, parents help

the child to cope with challenges of reality and to develop the necessary constructive patterns of personal adjustment.

Minority-group children need to learn that some kinds of behavior which result from social rejection are self-destructive. These boys and girls can be shown that aggressive, anti-social, and delinquent behavior is not likely to lead to personal effectiveness and constructive social change. While such behavior is natural and understandable within a pathological social setting, the child can be helped to direct his energies into channels that are more constructive so far as both society and the individual are concerned.

But of course children do need an outlet for their feelings. They need to be able to express their anxieties and hostilities and rebellion. And home can provide a safe and understanding place for giving vent to these feelings.

Minority-group parents have the additional responsibility of helping their children to develop a fundamental tolerance and compassion for their fellow man. These qualities serve as an antidote to the venom and bitterness that are likely to result from being the victims of a racist culture. Children need to be told, directly or indirectly, that not all people of the dominant group are necessarily prejudiced. There is nothing to be gained by giving boys and girls an impression that racial, religious, and nationality prejudices are inevitable. It can lead to a feeling of hopelessness and despair which is sometimes personally stultifying.

Children can be shown that there are many examples of unprejudiced behavior in our culture, and that there are many individuals who are either unprejudiced or are striving to overcome their prejudices. It is important that these illustrations do not go beyond the bounds of reality into the realm of sentimental, wishful thinking. A most effective and realistic way of presenting this point of view is seen when the parents have friends and acquaintances among individuals of different racial, religious, and nationality groups.

Parents who initiate, emphasize, and participate in discussions of outstanding achievements of members of various minority groups also help their children. When kept in perspective, these discussions serve as a stimulant to the children; when exaggerated, they create the impression that these individuals are freaks, or that their accomplishments indicate some special virtue of minority-group members.

The purpose of using such examples is to reinforce self-esteem and raise aspirations, not to foster an empty minority-group chauvinism.

Before parents can offer their children solid protection against the potential ravages of the racist disease, they themselves must have a firm core of human values and a strong social morality. These characteristics guide parents' perspective and actions in their relations with other human beings. It is not enough that parents put ideals into words. Children seem to be more sensitive to social and psychological realities than to mere words. They won't believe what their parents say about minority status unless the parents themselves believe it and act on it. If parents are unsure, escapist, defensive, ambivalent, and full of conflict, their feelings will be communicated to their children. Because of his acceptance of these unstabilizing patterns from his parents, a child may be unable to withstand the negative pressures of a rejecting larger culture. He will then be unable to contribute to the attainment of a more democratic society.

Of course it is sometimes difficult for parents to overcome the effects of social rejection on their own personalities. They themselves are the victims of the same forces from which they seek to protect their youngsters. Many of them still suffer from the impact of segregation and discrimination. Only when they can accept their own intrinsic value without the anxieties and self-doubt caused by prejudice can they help their children to do so.

Thus the responsibility for the better adjustment of minority-group children is cast into the hands of a total society that must continually strive for greater understanding of self and neighbor.

62. The American Indian Child *

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Today the American Indian school population of 200,000 is in some areas a culturally handicapped group. Some of the Indian children belonging to approximately 300 tribes and bands attend school on reservations; some attend off-reservation federal day or boarding schools; some have been successfully integrated into the local community's school program. Wherever the Indian lives, past events and cultural conflicts have produced problems that confront him today. Aleta Brownlee discusses what these problems are, why they exist, and what measures are being taken to solve them.

In many ways the American Indian child is a child apart from other children. His isolation from the main currents affecting other children is the result of many historical factors including the benevolent paternalism of his Government. In many cases he is also a child caught between two cultures, having lost much of the stability of the old and not having generally taken on control of the new.

Most Indian children are set apart from other American children by where they live and by their families' differences in language and customs. Moreover, their money and property are usually not under the same type of control as that of other children, their local government and court may be run by a tribe rather than a county, they may attend a Federal rather than a local public school, and they are likely to receive their health services from the Federal Government rather than from private physicians or from State and county services.

Often taught other values than those which are commonly stressed with other American children, the Indian child must try to live in

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two worlds. When he leaves the reservation, as at times he must, he has little help to make this a happy experience.

The Indian child on a reservation is surrounded by many adults who freely express feelings of dependency, inadequacy, and despair, and act accordingly thus producing an environment inimical to healthy living. The situation tends to prevent the child from having a normal approach to life, as it has his parents and even his grandparents. Too often the reservations in spite of their dances, feathers, and beads hold less glamour than misery for the children living on them. The trouble comes not so much from lack of money to help them, as from lack of the requisite understanding of them by others.

The general administrative and legal, but not anthropological, definition of an Indian is a person of one-fourth or more Indian blood, although different definitions have been made from time to time in relation to specific legislation.

Christopher Columbus' word "Indian" has no meaning to these oldest Americans except as a comprehensive term used to describe Federal relationships to them. The American Indian speaks of himself in terms of his tribe, "I am Sioux," "Cherokee" or "Modoc," as the case may be.

Considering the fact that the census enumerators of 1930, 1940, and 1950 had three different definitions of an Indian, based upon enrollment and admixtures of other blood, it is somewhat difficult to count the number in this country. However, the total number of Indians, who are for one reason or another some concern of the United States Government, probably comes to about a half million people, a little more than half of whom are minors.

Most of these Indians live in some 154 identifiable tribal jurisdictions, variously known as reservations, pueblos, colonies, or communities, which come within the responsibility of the agency offices of the Bureau of Indian Affairs. They are located in 21 States. The largest are in North Dakota, South Dakota, Montana, Oregon, Washington, New Mexico, Alaska, and Arizona.

In addition to persons living on reservations or on other property held in trust for them by the Federal Government there are an unknown, but large, number of Indians living in the general population.

The Culture of the Indian

Ben Reifel, Director of the Aberdeen Area for the Bureau of Indian Affairs, himself half Sioux and half of German ancestry, in examining the culture of the Plains Indians, has pointed out four ways in which they are apt to be different in attitude and outlook from most other Americans:

1. They are not future-oriented. For a thousand years they had no need to be apprehensive about the future. Therefore they found the essence of life in being, not in becoming.

2. Time is not important to them. The Sioux language does not even have a word for time. Their concern about the passing days is merely general, relating to natural phenomena like the sun, moon, and seasons.

3. Saving as a means of economic development has little meaning to the Indian. He has not needed to save to survive.

4. Habituation to hard work in order to earn a living has not been part of the Indian way of life, especially for the men.

Thus, we find today that many Indian parents lack ambition for their children; they have no zeal to get them to school on time; they have an urge to spend all their money, even the part belonging to their children, on a passing pleasure, and the father is disinclined to get a job or to go where he can get a job to support his family.

Culture is an ever-changing process, as human beings adopt what is desirable and useful to them, and discard what is not. Federal policy over the years, ambivalent in emphasis as it has moved from a program to separate the Indian from his culture to a program to restore him in it and then toward "acculturation," a middle ground which emphasizes the free choice of the individual, has not in the past nurtured in the Indian a receptivity to progressive change.

The Indians are in various stages of acculturation. Probably about half of them—or more than 200,000—have taken on aspects of the dominant American culture. This may or may not be good, largely depending upon what kind of contacts they have with others. What is badly needed is more contact, starting in childhood when possible, based upon a genuine desire on both sides for intercommunication.

The reservation system makes this difficult. A reservation is not,

as has been charged before the United Nations, a concentration camp (unless it may be of the human spirit) nor is it the "museum piece" others have termed it. It is physical evidence of payment of a debt to the Indian people; but even more, it is home. People who leave the reservation do return, but many returnees leave again having acquired a taste for life off the reservation.

The Plight of Children

On the reservations the normal pattern of American family life is never established for many children. This is partly due to lack of "know how" on the part of Indian parents, many of whom evince little interest in learning. However, little practical help or stimulation has been given them in this regard. Many of the parents themselves have been deprived of a satisfying relationship with adults in their own childhoods, and have consequently not learned to trust and relate to other people.

Considerable effort on the part of social workers and the Indians themselves would be required to put into general effect on reservations the following principles commonly regarded as desirable in family life in the United States:

1. The father works and supports his family to the best of his ability.
2. The mother cares for her home and her children, keeping them clean, well fed, properly clothed, and happy.
3. Both parents maintain for themselves and establish for their family standards of morality.
4. The parents are concerned for the education and the future of their children.

Many Indian parents may accept these principles as desirable, and some certainly live up to them, but others are easily discouraged. Some seem to lack the "will to do" or to be skeptical of the effectiveness of effort. Others have apparently been so unhappy in their own childhoods that they are unable to care much about their children. The customary permissiveness of Indian parents in relation to children also hinders the development in the child of a disciplined approach to life.

Social workers and courts use the term "neglected" to cover

various degrees of parental oversight. On Indian reservations where court neglect cases run far above the average the term is not used lightly. Too often it is apt to refer to a child needing hospitalization for malnutrition because nobody felt it important to feed him; or a child locked in the house for days, forgotten by parents carousing in town; or a child unwanted by the new man in his mother's life; or a 10-year-old child found drunk on the street at midnight.

Lesser examples of neglect also abound. Some parents fail to provide their children with such simple daily necessities as clean clothing and lunches for school. Some demand their children's money for their own use.

Naturally children react to such neglect with a variety of unhealthy behavior patterns, which are the despair of schools, courts, and social agencies. Individual children and young people are in crying need of the kind of adult understanding and support which can give them security and hope.

Education

It has often been said that the greatest hope for the future of the Indian lies in education. Over half the Indian children of school age now attend regular community public schools, usually through contract with the State, while others attend day or boarding schools maintained by the Bureau of Indian Affairs. Vocational training is obtainable at a number of the boarding schools. Nearly 3,000 Indian children, most of them Navajos from homes far from any local school, live in 16 Bureau-maintained dormitories and attend nearby public schools.

The chief reason the Bureau maintains schools is the lack of other schools available to Indian children. However, 16 of its boarding schools and 4 of its dormitories also carry a large responsibility for the care of dependent and neglected children.

Being the principal resource for care of the school-age child away from his own home these boarding schools and dormitories have become a repository for children who have no parents or whose parents have abandoned them. They contain a great many children whose parents have separated and lost interest in them after taking on new partners and having other children. Many of the children were born

out of wedlock and were first given by the mother to the maternal grandmother who when they reached school age turned them over to "Uncle Sam" and permanent residence in a boarding school. Some of the children were abandoned by their mothers immediately after birth and lived in hospitals until they were old enough to attend school.

Many other children in the boarding schools have been placed there for economic reasons alone by parents who are thus relieved of any necessity to support them.

Since the addition of child-welfare workers to the Indian Bureau's staff, emphasis has been placed upon keeping children with their own families whenever they can attend a local school, and making more suitable plans for the parentless or abandoned where possible, usually by contract with public or private social agencies. Inevitably the concentration of serious social problems in a boarding school or dormitory unequipped with the specialized staff to meet them produces serious behavior problems.

The Bureau of Indian Affairs considers its social-welfare program as supplementary to those of the States, which vary a great deal in their own programs. Some States make no distinction at all insofar as Indian children are concerned; others discriminate against them because of their tax-exempt land. However, even with the best intentions, child-welfare programs are so seriously understaffed in many States that they cannot provide full coverage to all children needing service, Indians or others. State child-welfare services are rarely available to children living on a reservation. Some States are plagued by court jurisdictional questions in protecting Indian children, although courts seldom refuse to take protective action for an Indian child.

Toward Self-Improvement

Many concerned Indians believe that improvement in the lives of their people must come out of the thinking and planning of the Indians themselves. This thinking has already permeated some of the tribal councils which are taking steps to protect their children and to encourage young people to become more self-reliant. Educational funds totaling millions have been set up by 24 tribes to assure

full educational opportunity for their young members. The Utes and the Jicarilla Apache tribes, which have considerable financial assets, have through action taken by their own legal counselors set up minors' trusts in trust companies in Denver and Albuquerque to protect their children's money.

Since few reservations are able to support their growing populations at a decent level of living, most Indian tribes are taking steps intended to help people still on the reservations to adjust to off-the-reservation ways of life.

The encouragement of self-reliance is implicit in the most recent expression of Federal-Indian relationships. This is contained in House Concurrent Resolution 108 (83d Congress 1953) which states in its preamble:

"... it is the policy of Congress, as rapidly as possible, to make Indians within the territorial limits of the United States subject to the same privileges and responsibilities as are applicable to other citizens of the United States and to grant them all of the rights and prerogatives pertaining to American citizenship. . . ." The resolution lists certain Indian groups which the Congress deemed ready to be freed from Federal supervision and control and from disabilities and limitations especially applicable to Indians. Subsequently, so-called "termination" laws were enacted affecting certain specified tribes, the largest and most prosperous of which are the Klamath of Oregon and the Menominee of Wisconsin.

What of the Future?

Many Indians have found their own way to a more satisfying life and many more will do so. However, there is reason to be concerned about those who are undecided and fumbling, who waste opportunity, who are discouraged and doubtful. Their numbers are not great; a few hundred families on most reservations. A joint effort on the part of the tribes, the States and counties, the Bureau of Indian Affairs, and other appropriate Federal agencies should be able to produce a plan which might provide a spark of hope for each family.

Such a plan might include:

1. Provisions ensuring newborn babies and children under 6

of an environment which will break the vicious circle of unloved children becoming unloving parents.

2. Various steps, such as the employment of visiting teachers and promotion of parents' clubs, which can help parents understand and assume their responsibility for their children's home life and education.

3. Steps which can help families make more effective use of financial assistance and provide incentives to persons capable of becoming self-supporting to remove themselves from assistance rolls.

4. Steps to combat cultural patterns which are an impediment in present-day living. (Already ways are being found to deal with certain differences between the Indians and others in concepts of what is important. For example, one boarding-school adviser has set up a system for referring students to jobs, beginning with very simple tasks, and permitting progression only on the basis of proven responsibility such as getting to work on time.)

5. Steps which will help Indian children and youth to persist in their education, including the provision of educational and vocational guidance based on their individual capabilities.

6. Steps to make social services, including child-welfare services, available to families and children in need of them.

7. Community programs to enrich the life of Indian families on the reservations and to open the possibilities of life elsewhere to those who are interested. (How, for instance, can a community and its high-school students try to help the reservation children of high-school age who dread the prospects of attending public school?)

As an American citizen, the Indian should feel as free as any other person to come or to go and to use his resources as he himself wishes. He needs to shake himself free of the "Great White Father." If he is to live proudly in today's world he must adapt to the dominant culture while retaining those vestiges of his own culture which are useful or pleasant. And perhaps he will continue to make his own distinctive imprint on the general culture as he has with the corn he developed, the beautiful jewelry he has made, the paintings we now see exhibited in our galleries, and the songs and dances of ethnical significance by which he has related himself to Nature.

63. Teaching American Children from Spanish-Speaking Homes *

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AND

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"Some teachers are hopelessly overwhelmed when they are assigned to teach a group that includes children whose language and modes of behavior differ from those that we expect to find in middle-class American homes." Such assignments are particularly likely in communities in the Southwest, in Florida, and in New York City. Here the teacher is likely to find children whose principal socialization, before coming to school, has been in Spanish and according to standards of behavior that may seem strange to the instructor.

Since our population of children of Puerto Rican, Mexican, and other Spanish-speaking minority groups continues to grow, this problem is becoming more widespread. Articles such as the following provide a background for understanding the Spanish-speaking child as well as suggesting concrete teaching techniques that may prove useful to the teacher working with this culturally handicapped group.

Basically, children who come from Spanish-speaking homes should be taught in much the same way as children from any other kind of home. In either case the effectiveness of the teaching depends on how much the teacher knows about the child's previous experiences and how well he can provide opportunities to build on these experiences.

How well the teacher understands the Spanish-speaking child may depend largely on what he knows about the foreign culture. By understanding the culture, the teacher may know approximately what to expect.

* Reprinted from *Elementary School Journal*, 57: 198-203, January 1957, with the permission of Simon Chavez and the *Elementary School Journal*.

For instance, he may have a pupil from a Spanish-speaking home who, instead of admitting that he missed the bus, will blame the bus for leaving him. Or there may be a pupil who does not hesitate to miss school to attend the wedding of a distant cousin. It is quite possible that some parents will spend all of their earnings on a television set without ever bothering to take out a life-insurance policy or to start a savings account.

When these things happen, how is the teacher going to interpret them? If he bases his interpretations on the values held by the middle class of our culture, he is likely to consider such behavior irresponsible and to feel that it is his duty to change these behavior patterns.

However, if the teacher makes an attempt to understand the possible cultural differences behind such behavior, he may even conclude that a different way of looking at such things is as defensible as his own. The child who is late to school and blames the bus for leaving him, instead of blaming himself for missing the conveyance, may, in the long run, profit from his attitude; he is not likely to develop an ulcer or to become emotionally unbalanced because of a useless feeling of guilt.

Likewise, the child who misses school to go to a wedding may do so because of a cultural concept of time values. A particular wedding comes only once, while school or work goes on day after day. Similarly, the parent who buys the television set may feel that you must enjoy life in the present instead of postponing enjoyment for the future. If you try to extract some enjoyment from everything that comes along, you are going to be better off than if you schedule your enjoyment for a particular time or situation. This concept is aptly expressed in the book *Teresita of the Valley*, in which Teresita says: "I say to you, more fun we have at our funerals than they at their parties."

Need for Teachers to Understand Cultural Differences

Unless teachers in bi-cultural communities understand the differences in values between the two cultures, they will define as unacceptable many forms of behavior that are usual in the foreign culture. Living in a bi-cultural community should be viewed as an opportunity to develop international understanding. This does not mean that the people who come from a culture other than the dominant one are not real Americans. The differences that exist between two cultures in this country are likely

to be even more pronounced in the community of nations. If we cannot establish a bridge of understanding between cultures under the protection of our democratic system, it is improbable that we can do so between nations.

The need for an atmosphere that is conducive to sharing between cultures may not be so evident in a community that includes many immigrants. In those communities, people from differing cultures have migrated to this country to seek citizenship even if it means a change in many of their ways of behaving. In contrast, the Indians and the Spanish-speaking people of the Southwest and of Puerto Rico became citizens of the United States, not by request but by edict. They have not been anxious or willing to change their ways. They treasure their cultural heritage and wish to perpetuate the values that were passed on to them.

We must be careful not to assume that other people do things in a strange way, for our actions may appear equally strange to them. We need to know what facets of our behavior may appear questionable to others. As an example let us take a look at our concept of time. In our Anglo-American culture we consider time in the future more valuable than time in the present or the past. We are immensely interested in what is going to happen. We work hard for retirement so that then we shall be able to do the things that we dare not stop to do now. We eagerly anticipate the hatching of the new minutes to see what news they will bring us. We stay up late to hear tomorrow's news while it is still today. We hurry down to the newsstand on Wednesday to buy a magazine bearing next Friday's date. We are not interested in reading a newspaper that carries yesterday's date nor in buying bread that was baked two or three days ago.

We are likely to be unaware of the peculiarities of our culture. We might go one step further and criticize or be amused at others because they lack the peculiarities that seem so natural to us. For example, a reporter asked a Chinese delegate to the United Nations what he thought was the oddest thing about Americans. The Chinese delegate replied, "The peculiar slant of their eyes." In another instance an American visitor in Bombay, discussing a current famine, asked a Hindu, "When are you people going to stop worshiping your cattle and start eating them?" The Hindu answered almost mischievously, "That will be about the time you Americans start eating your dogs."

The preceding anecdotes illustrate that our peculiarities are not more

defensible than those held by others. In our democratic society we proclaim that we will respect every individual, along with all his differences. We will not usurp the godlike prerogative of fashioning other people to our image. Ralph Waldo Emerson once visited a schoolroom and, upon leaving, commented to the teacher, "Madam! You are trying to make all these children just like you. One of you is enough."

Helping Children to Contribute to the Group

We have to respect the uniqueness of every individual who comes to our schools. When these children come to us from a different culture, they need to learn our ways in order to compete with the greater national community. However, this learning should not be one-sided. In the process of becoming acculturated to our ways, they can enrich our life by the contributions that they bring with them.

We can make it easier for a child to contribute to the group, if, first of all, we help him develop a feeling that he belongs to the group and is important to it. We can encourage him to share with us some of the songs, stories, and other items from his culture—a contribution that only he can make. We can be alert to analyze biased information that might appear in our instructional materials. In addition, we can strive to give all our pupils opportunities to understand others by identifying themselves with people of a different culture. In brief, the child from a different culture, coming into ours, should not be saddled with the entire responsibility of abandoning his ways and learning ours. Everyone will gain more if, instead, all have a willingness to share.

There are many ways of bringing about a better understanding of each other's ways, such as teaching Spanish as a second language and using films and other instructional materials and techniques. However, before embarking on any one approach, it should be emphasized that there is a need to have a broad understanding of basic cultural differences. The reading of good informative books can help us gain this insight.

Promoting Reading Readiness

The primary-grade teacher in a bi-cultural community faces special problems in getting the non-English-speaking children ready to read.

Many reasons have been given to explain the low level of reading attainment characteristic of a relatively high portion of Spanish-speaking children. The dual-language handicap and the even more important factors of poor health and discouraging economic and environmental situations are difficulties faced by many of these children. The school must also take a certain share of the blame for this group's reading handicap. Too many times administrative policies have allowed the schools serving low-income minority groups to be staffed by inefficient or worn-out teachers. A minority group is in need of expert teachers. Children who are handicapped by inadequate knowledge of English require the best that can be had in instruction.

A lack of interest in scholastic learning is often traced to several sources: lack of intellectual capacity; inadequate motivation due to home, school, or community environment; deficiency in some, or nearly all, of the skills necessary to the gaining of scholastic knowledge. It seems certain that the last factor, lack of necessary skills, accounts for most of the drop-outs among Spanish-speaking children. The non-reader, for example, has a very difficult time in the primary grades. In the upper grades he is overwhelmed.

When we begin to examine ways to promote the reading readiness of Spanish-speaking children, two main questions arise: Is the Spanish-speaking child different from the English-speaking child? Is it necessary to use methods, techniques, and materials different from those we would use with English-speaking children?

How Do Spanish-Speaking Children Differ?

A look into the backgrounds of the Spanish-speaking children of the Southwest will help us answer the question posed above. Please note that the term used is "backgrounds" and not "a background." Statements such as the following are often heard: "You must handle them this way, or you get nowhere." "They just don't want to learn." "You can't treat them as you do other groups." Perhaps the last statement is true, at least in a certain sense. It is vitally important that a teacher of a minority group should make a thorough study of the group's history and culture. Having gained a firm foundation of knowledge concerning the habits and customs of this particular unit of society, the

teacher is certain to change his own attitudes and understandings and will certainly want to handle the children differently.

Although most of the Spanish-speaking families of the Southwest still earn their livings by means of manual labor, a few have entered the professions, particularly teaching and nursing. In general, the economic outlook is improving. However, in health, social integration, and acculturation, many families are still far away from a desirable position. This divergence is pointed up by the children who come to school. A few come from homes where little or no Spanish is spoken. Many live in situations where both English and Spanish are spoken with varying degrees of proficiency. There is still a small fraction of children who speak little or no English when they enter school.

Obviously these facts provide only the most generalized aspects of the backgrounds we might expect for the Spanish-American children. Yet even these point up the error in seeking one pattern to fit all of them. It becomes evident that the Spanish-speaking child is a highly complex individual, who is to be handled differently from any other. It is imperative that we study and try to understand his background.

Examples of Teaching Techniques

Many teachers of language-handicapped children recommend the same techniques and methods for both Spanish-speaking and English-speaking children. They point out that the Spanish-speaking child's basic needs are the same as those of any other boy or girl. All stress the need for understanding and sympathy for the child and his background.

Eva Borrego (1) ¹ maintains that the two-language child does not need a wholly different method of teaching. Instead the child should be presented material in the "right" way. Some "right" ways that she advocates are:

1. The teacher should be familiar with the heritage and background of the child.
2. Colorful and motivating items should be kept in the room.
3. Classes should engage in many activities, such as singing, choral speaking, and dramatizations.

¹ Numbers in parentheses refer to items in the list of references at the end of the article.

The same view is shared by Dwight Hamilton (4). He recommends that the equipment and materials not differ greatly from those used in any good primary-grade room. More use should be made of pictures, concrete objects, experience-chart stories, and the like than with an English-speaking group.

Nearly all reports on the education of bilingual children agree that we must do the same for Spanish-speaking children as for other children, only more so: more experiences, more concrete objects, more teaching of concepts. One is tempted to say, simply, more expert teaching.

What are some of the accepted techniques in promoting an adequate reading-readiness program for Spanish-speaking children and how can these techniques be used at the primary-grade level?

Dolch (3) has a recipe for successful teaching of reading which can well be applied to our problem. There are three requirements in the recipe. The first and most important is to give the child a sense of security. The Spanish-speaking child's need for security is almost doubly important by the very fact that he comes from a minority culture. Friendly relations must be established before there is much chance for success in teaching reading. The second element in Dolch's recipe is to find the child's own "area of confidence." Too many teachers present new words and new concepts too soon and too easy. It is necessary that the child feel fully confident of each concept, sound, word, before proceeding to new and unfamiliar experiences and situations. The third element is to let the child advance from his area of confidence by a series of "success steps." In order to determine what concepts and materials to introduce, the teacher must study the needs of the individual child. Small reading classes are imperative.

In most cases the major stress in a readiness program should be in areas of concept-building, with minor stress on drills for correct pronunciation. However, the satisfactory development of oral communication is an extremely important phase of the reading-readiness program. Frances Koenig (6) states that many children from Spanish-speaking homes write much better than they speak. This may be caused by a mental block when a child feels that other children will laugh at, or become bored with, his oral communication.

Another interesting approach to language development is described by Waltrip (11). She points out that a major portion of Spanish-speaking children come to school with an extreme lack of the kind of experiences

portayed in our reading textbooks. These children have certainly had many experiences, but experiences which are socially desirable and personally enriching according to our cultural standards are lacking in a large degree. Because the reading textbooks describe experiences which are characteristic of upper-middle-class families, the Spanish-speaking child, coping with language difficulties in addition to the difficulties usually associated with the initial contact with the reading processes, is also trying to derive meaning from what the teacher is saying in terms of his own experiential background.

This situation led one classroom teacher to conclude that one must rely largely on vicarious experiences as a source of enrichment for these children. She experimented by using films and the film reader with the slowest group in her room. By combining group discussions with the showing of film, the children attached meaning to the words used to describe the things seen in the film. This approach challenged and encouraged the children to learn because they were experiencing together and because they could derive meaning both from the projected picture and from the printed word.

Perhaps the foregoing discussion on the promotion of reading readiness in the Spanish-speaking child can be summarized by stressing the importance of seeing each child as a complex individual. The Spanish-speaking child does not require different methods or materials. He learns through ways that have been found efficient for all children. If to these factors we can add the importance of an understanding of the child's cultural background and a desirable attitude on the part of the teacher, the result will be satisfying for all concerned.

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64. Effects of Migrancy on Schooling *

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A study entitled "The Education of Migrant Children" was carried out by the National Council on Agricultural Life and Labor in co-operation with the Department of Rural Education of the National Education Association in 1954. The following selection is an excerpt from a chapter of this study. To introduce the reader to the problems of migrant children, several comments from other sections of the study are presented here.

It has been stated that the children of migrant agricultural workers constitute one of the most disadvantaged groups of children in American life. In 1952 the U.S. Bureau of Agricultural Economics reported that there were 450,000 in the domestic migrant labor farm force, with California, Texas, Michigan, and Florida having the principal concentrations. The chief victims among the migrant workers are the children. They are robbed of normal home and community life and are universally handicapped by too early employment and too little educational op-

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portunity. Migrant families moving restlessly through community after community, neither claim the community as their home nor are claimed by the community. Often the community feels that "migrants are dirty and undesirable citizens who have a lot of illegitimate children," and truant officers often overlook their responsibility in encouraging attendance of the migrant children in local schools.

The needs of this group of culturally handicapped children are great. Among those pointed up in this study are: more adequate attendance supervision; special "helping teachers"; opportunity rooms; teachers who speak the language of foreign-language groups; more and better health examinations, inspections, and services; additional classrooms; special instruction in the use of the English language, especially oral English; more attention to personal hygiene, grooming, and manners; activities that increase the migrant's sense of belonging, self-respect and confidence; emphasis on the contributions of various cultural groups to American life; and the offering of better-adapted general and technical vocational education.

Nancy Lou was born in Allentown, Florida, November 12, 1938, the youngest of nine children. She started to school in Pine-land, Georgia at the age of six, and continued for two and one-half years. Her parents moved to Hoboken, Georgia, and Nancy Lou was placed in the second grade at the age of nine and completed the second grade. In November, 1948, her parents migrated to Belle Glade, Florida. Nancy Lou did not enter school until her parents had migrated "up the road" in April, 1949, and returned in November. She entered the third grade in Belle Glade in December, 1949. She remained in school approximately three and one-half months during the 1949-50 school year and went back "up the road" in April, 1950. She returned to Belle Glade in November but did not re-enter school until December, 1951. She went to school about six weeks in 1952 and hasn't been in school since. Mother says Nancy Lou is planning to go back soon. She is presently fourteen years old and classified as a fifth-grader. (From a case study taken in January, 1953)

This brief case history of a Florida Negro family is typical. In this selection we shall see Nancy Lou multiplied by several hundred as we inquire into the amount of schooling acquired by these children and the effects of migrancy upon their educational opportunity.

Family Mobility

Tables 1 and 2 summarize the situation with respect to family mobility. Table 1 shows the number of different communities in which the families were resident during the year prior to the interview. In the many cases where the present residence is in the same community as that of 12 months ago, that community was counted only once in this tabulation.

TABLE 1
Number of Communities Inhabited During the Year
(Source: 665 Migrant Family Schedules)

		Total Sample	Florida Negro White		Virginia	Texas	Illinois
Total Families: No.		665	266	70	71	162	96
	%	100.0	100.0	100.0	100.0	100.0	100.0
No. of Commu- nities Inhabited							
2	No.	303	165	32	15	74	17
	%	45.5	62.0	45.7	21.1	45.7	17.7
3	No.	126	47	20	7	32	20
	%	18.9	17.7	28.6	9.9	19.8	20.8
4	No.	121	41	9	21	25	25
	%	18.2	15.4	12.9	29.6	15.4	26.1
5	No.	55	10	5	11	14	15
	%	8.3	3.8	7.1	15.5	8.6	15.6
6	No.	38	3	1	10	11	13
	%	5.7	1.1	1.4	14.1	6.8	13.6
7	No.	12		2	2	3	5
	%	1.8		2.9	2.8	1.9	5.2
8+	No.	7		1	2	3	1
	%	1.1		1.4	2.8	1.8	1.0
Not reported:	No.	3			3		
	%	.5			4.2		

A little less than half of the 665 families have lived in only two communities during the year. This usually means that they went from a home base to one other location for agricultural work and returned to the home base. This pattern appears most common with the Florida Negro group.

Another 37.1 per cent of the families have lived in three and four communities during the year, while 16.9 per cent have resided in five or more communities. Those families interviewed on the road (Virginia and

Illinois) have, on the average, lived in more places during the year than those interviewed at home base.

Table 2 makes it clear that 78.9 per cent of the families lived in no single community as long as 30 weeks. Since the normal school year in all four of the study centers is 35 or 36 weeks, it is obvious that the children in over three-fourths of the families could not have completed an uninterrupted year's work in any single school. The Florida white group reports the largest percentage (38.6 per cent) of the families having a continuous residence of more than 30 weeks in one community. Unfortunately the long continuous residence of many of these families was not coincident with the normal school year. It represents rather their summer-time residence in some other Southern state whence they came to Florida for a winter packing-shed season of more limited duration.

TABLE 2
Longest Continuous Residence During the Year
(Source: 665 Migrant Family Schedules)

		Total Sample	Florida Negro White		Virginia	Texas	Illinois
Total Families: No.		665	266	70	71	162	96
%		100.0	100.0	100.0	100.0	100.0	100.0
Residence in Weeks							
Under 10	No.	7	1	1	4	1	
	%	1.1	.4	1.4	5.6	.6	
10 to 19	No.	140	64	17	3	45	11
	%	21.1	24.0	24.3	4.2	27.8	11.5
20 to 29	No.	378	162	25	40	99	52
	%	56.7	60.9	35.7	56.3	61.1	54.1
30 to 39	No.	81	22	17	11	16	15
	%	12.2	8.3	24.3	15.5	9.9	15.6
40 and over	No.	56	16	10	11	1	18
	%	8.4	6.0	14.3	15.5	.6	18.8
Not recorded:	No.	3	1		2		
	%	.5	.4		2.8		

Educational Handicaps Imposed by Migrancy

From these indices of family mobility, let us turn to a report of the number of schools attended by the children of our sample and the number of weeks attended during the 12 months prior to the interview. The number of schools attended by the children is shown in Table 3.

It is a striking and disturbing fact that, despite their moving about and their relatively short periods of continuous residence, over 60 per cent of the children who attended school were enrolled in only one school. In the case of the Negro group sampled in Virginia, this percentage rose to 94.4 per cent. The Texas group was next in order with 72.5 per cent of the children enrolling in only one school. Very few of these children attended more than two schools during the year preceding the interview.

TABLE 3

Number of Schools Attended During Past Year
(Source: 665 Migrant Family Schedules)

		<i>Total Sample</i>	<i>Florida</i>		<i>Virginia</i>	<i>Texas</i>	<i>Illinois</i>
			<i>Negro</i>	<i>White</i>			
Total Children: No.		1499	608	155	89	418	229
Reported %		100.0	100.0	100.0	100.0	100.0	100.0
Schools Attended							
1	No.	930	392	54	84	303	97
	%	62.0	64.5	34.8	94.4	72.5	42.4
2	No.	503	213	77	4	88	121
	%	33.6	35.0	49.7	4.5	21.0	52.8
3	No.	59	3	20	1	25	10
	%	3.9	.5	12.9	1.1	6.0	4.4
4	No.	7		4		2	1
	%	.5		2.6		.5	.4

The number of weeks attended by individual children during the past 12 months is reported in Table 4 for all those who reported any attendance above the first grade. First graders were omitted from this tabulation because most of them first entered school within the 12-month period preceding the interview. Their inclusions would have distorted the record.

The interviewers were instructed to count as a week of attendance any calendar week in which the child attended as many as three days. Consequently the figures in Table 2 may be accepted as a rough measure of the portion of the school year, in weeks, during which the child was attending school. It is in no sense a refined index of the exact amount of schooling received by the child. Short-term absenteeism is wholly obscured in this particular measurement.

In all groups except the Florida whites over half the children attending school at all attended less than 30 weeks. For the total sample approximately 60 per cent had less than 30 weeks in school. In the case of the Virginia group, nearly four-fifths reported less than 30 weeks of attendance.

TABLE 4

Number of Weeks' Schooling During Past Year
(Source: 665 Migrant Family Schedules)

		Total Sample	Florida Negro White		Virginia	Texas	Illinois
Total Report- ing Some Attendance	No. %	1195 100.0	500 100.0	131 100.0	71 100.0	324 100.0	169 100.0
No. Weeks Less than 10	No. %	67 5.6	21 4.2	6 4.6	11 15.5	25 7.7	4 2.4
10 to 19	No. %	142 11.9	44 8.8	14 10.7	14 19.7	55 17.0	15 8.9
20 to 29	No. %	501 42.0	212 42.4	23 17.5	31 43.6	139 43.0	96 56.8
30 and over	No. %	485 40.5	223 44.6	88 67.2	15 21.2	105 32.3	54 31.9

Other correlations throw significant side lights on the extent of schooling attained by these children. Analysis reveals that, as a tendency, the higher the parents' educational attainment, the larger the number of weeks of school attended by the child. Thus, for example, 16.3 per cent of the children whose fathers never attended school were themselves reported as attending more than 30 weeks; for children whose fathers attained grades 1-4, the corresponding figure was 25.3 per cent; for children whose fathers attained grades 5-8, it was 46 per cent; and for children whose fathers went beyond grade 8, it was 75.2 per cent. The same tendency prevails when mothers' educational attainment is correlated with the children's weeks of school attendance.

The degree of family mobility also appears to have affected the amount of schooling received. Thirty-four per cent of the children whose families reported only two residences achieved 30 weeks or more of schooling; at the other extreme only 13.9 per cent of children whose families moved six or more times did as well. Among families reporting three residences, 65.4 per cent of the children in school above the first

grade attended 20 weeks or more; among those moving six times or more, the corresponding percentage was 36.4 per cent. There was no significant difference between boys and girls in the number of weeks of school attendance.

Summary and Comment

It is clear from the statistical analysis presented in this chapter that migrancy seriously interferes with educational opportunity. Movements in search of agricultural work interrupt school attendance. Failure to enter school promptly at new locations frequently prolongs the school time lost from days into weeks. Our information does not permit a statistical combination of the whole weeks missed in these transitional periods with the days missed because of absence during periods of enrollment, but from all the evidence available it is obvious that the educational experience of these children is both sharply limited and seriously interrupted.

In the face of this evidence, it seems clear that there is no complete solution to the problems of education for migrant children. Any and all recommendations contained in this report, helpful as they may be, will be at best, palliatives in an unsatisfactory educational situation. Frequent uprooting and moving from community to community and from school to school with consequent interruptions and readjustments simply do not provide the conditions necessary for a satisfactory educational experience, either in the limited technical sense of subject matter learning or in the broader social sense of preparation for mature living in a democracy.

Recommendations

1. We recommend that all who are truly concerned with these problems—growers, educators, sociologists, economists, political and civic leaders unite their efforts toward the development of our national economy in ways which will stabilize employment and minimize the need for employment of migratory families.

2. We recommend that school authorities establish and maintain regular communication with farm placement offices, grower organizations and such other groups as can aid them in keeping informed con-

cerning the volume and timing of migratory family movements in order that suitable educational adjustments may be made.

3. We recommend that state departments of public instruction take active steps to develop cooperative arrangements with neighboring state departments in the same migratory stream and with the U. S. Office of Education for the more orderly and effective handling of education for migrant children. Especially important in this regard is the working out of more satisfactory methods of transferring records of scholastic achievement for individual children from school to school as the children move.

4. We recommend that local school authorities cultivate the acquaintance of migratory labor contractors and crew leaders, urging them (a) to handle their itineraries and work arrangements as far as possible with the educational needs of children in mind; and (b) to encourage regular school attendance among the children in families with whom they work.

5. We recommend that state departments of public instruction work with local school districts for the establishment of accredited summer schools for migrant children in these communities where numbers of migrant families are resident during any substantial portion of the summer vacation period. Such schools can do much to supplement the limited schooling achieved by these children during the normal school year.

The Child Who Is Gifted

The term (*gifted*) has many meanings. To some it denotes children who have demonstrated superior ability in some specific area or areas. Thus, those with special talent in science, the fine arts, mechanical areas, or leadership could be classified as gifted. Some limit the definition to include only that small segment of the population manifesting superior ability in working with abstractions or conceptual ideas. Although educators frequently agree with the broader concepts, in providing special programs they have focused their attention on those who have (1) scored high on intelligence tests and (2) demonstrated high scholastic ability. The size of this group varies according to the lines of demarcation agreed upon in the various communities.

The problem of educating the gifted is not new; through the centuries educators have been confronted with this challenge. Changing educational philosophies, which reflect changing times, have often dictated the way schools have attempted to meet the needs of these children. Many questions remain unresolved, and it is essential that they be re-examined in light of current knowledge. Parents, educators, psychologists, and others need to know what the present attitudes toward the education of gifted are, how the schools are attempting to meet the educational needs of these youngsters, and what problems are confronted by the schools and the children themselves during this educational process.

The authors of the writings in this chapter present some interesting and cogent discussions of important issues in the education of the gifted. Lewis M. Terman and Melita H. Oden present a general overview; Margaret Mead emphasizes some sociological considerations. Robert F.

DeHaan concerns himself with identifying gifted children, and Paul Witty focuses on current educational practices.

Since enrichment and acceleration are the two most commonly used methods of meeting the educational needs of the gifted, the editors have included an article on each of these by two authors well known for their work in the field. Miriam Goldberg's review of research and accompanying bibliography will help the student who wants to delve more deeply into this subject.

65. Major Issues in the Education of Gifted Children *

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Is education for the gifted undemocratic? What special attention should be provided for these youth? Do such provisions tend to create special problems? How can gifted children be identified? What type of counseling is needed for gifted children? These are some of the questions considered by Terman and Oden in their discussion of "unresolved issues in the education of gifted children."

Of the many unresolved issues in the education of gifted children, five have been chosen for brief discussion. These are: (1) democracy and the IQ, (2) the educational lockstep, (3) early identification of the gifted, (4) educational opportunities that are feasible, and (5) needed guidance and counseling.

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Democracy and the IQ

This is a very old issue, but it was the late Professor Bagley who first brought it to the fore and who did more than anyone else to prejudice the minds of educators against offering any kind of special opportunities for the gifted. He wrote with particular scorn of training the gifted for leadership, and proposed instead that the important thing was to teach the average people when and where to tell their would-be leaders to get off. (To argue, as Bagley did, that all children should have the same kind of school training, at least through the grades, seems to us no less absurd than to argue that all children should have the same kind of medical treatment. Yet the Bagley point of view not only survives; it is in fact fairly widespread, though it is losing ground.

The Educational Lockstep

This refers to the belief that for the sake of normal social adjustment the gifted child should be kept with others of his own age, and that only such opportunities should be provided for him as are possible under this limitation. The doctrine is based on the belief that the social maladjustment caused by acceleration outweighs any of its advantages. The truth is that the evidence from every serious investigation of the problem shows this view to be largely false. (Data reveal that there is a marked tendency for children of very superior IQ to be more mature both socially and physically than children of average ability.) This is not to say that every child should complete high school and college as early as his IQ would permit. The gifted child who is already maladjusted or exceptionally immature socially should be allowed little acceleration or none, but the facts obtained in the thirty-year follow-up of a large gifted group prove conclusively that children of 135 IQ or higher who are accelerated one, two, or even three years are usually more successful in later life than equally bright children who are held in the lockstep. Acceleration is especially desirable for those who plan to enter a profession that calls for years of graduate study. Other advantages are that the accelerated find their school work more challenging and that earlier graduation enables them to marry earlier (which, on the average, they do).

Early Identification of the Gifted

Thirty years ago if one wanted to know who was the brightest child in a classroom, the best single chance of finding out was not to ask the teacher but to take the name of the youngest child in the room. But in these days when (tests of intelligence and school achievement are so easily available, one might suppose that nearly all of the gifted would be identified at an early age.) Such is not the case. (There are still millions of children who leave school without ever having had any kind of standardized test. Even where tests are used their results are so frequently misinterpreted that some of the gifted are likely to be overlooked. One reason why early identification is important is that acceleration by grade skipping is most feasible in the lower grades. Another reason is that the earlier the gifted child is identified the better his later education can be planned for.)

Educational Opportunities that Are Feasible

Under current conditions of teacher shortage and overcrowded classrooms, about the only kinds of special opportunity that are readily feasible for the gifted are three: (a) segregation in special classes; (b) parallel classes for fast, medium, and slow learners; and (c) acceleration.

The pros and cons of segregation have long been debated. It is believed that segregated classes at their best are very good indeed, but that they are rarely at their best. Parallel classes are a great help, but they are possible only in the larger schools. Acceleration, on the other hand, is always possible and in the majority of cases is desirable whatever other special provision may be made. (As for the curriculum enrichment that is so often praised as the ideal solution for the gifted, it is indeed fine in theory but it is very difficult in practice. Under the conditions that presently prevail it can hardly be regarded as a panacea. Nevertheless teachers should be alerted to the desirability of special assignments for the gifted in their classes and that they should be instructed by school supervisors and principals in the kinds of enrichment that are possible.)

Needed Guidance and Counseling

In 1953 the National Manpower Council, composed of twenty nationally eminent persons, reported after extensive investigation that 40 per cent of the young men and women in the United States who are potentially good college material either do not enter college or, if they enter, do not continue to graduation. What causes are responsible for this appalling wastage of brainpower at a time when there is an acute shortage of well trained minds in nearly every field of science, teaching, scholarship, and business?

There are doubtless many causes, but two of the most important are: (1) frequent failure to identify the gifted, and (2) when they *are* identified, failure to provide the kind of counseling service that is so badly needed in high schools and colleges. Of the more than 1,450 members of a gifted group (all of them in the top 1 per cent in general intelligence), nearly 15 per cent did not enter college and 30 per cent did not graduate. It is true that the schooling of some was cut short by the great depression, which began shortly before or shortly after most of them reached college age. However, many more of them would have gone to college if there had been adequate counseling service in the high schools they attended. As a matter of fact there was little or none at all in most of the schools. The result was that nearly two hundred did not enter college and more than four hundred did not graduate. The situation has improved in the last twenty years, especially in the educationally more progressive cities, but in both amount and quality the counseling available in most high schools is far below what is needed.

Counseling at the high school level is not only necessary to insure that more of the brighter students will get the amount of training they should have, but also to insure that each will get the kind of training best adapted to prepare him for later specialization.) This means *vocational* counseling, not for the purpose of encouraging the student to choose once and for all the occupation he will enter, but rather to discover the broad general fields where his abilities and interests lie. One of the most valuable single tools for this purpose is Strong's Vocational Interest Test, especially the form designed for men. This test reveals more clearly and accurately than any other what the student's patterns of interest are like; for example, whether they resemble most closely the interest patterns of successful men in the physical sciences, engineer-

ing, medicine, law, architecture, journalism, or some of the thirty other occupations for which the test can be scored. The thing that counts is not so much the score in a particular occupation but rather the patterns of interest that are disclosed. To interpret the great variety of patterns that are found calls for skill and experience, but when properly used the test is so valuable that every boy should be given a chance to take it before the end of his senior year. If the Strong test had been available and could have been taken by all the men in our gifted group when they were in high school, at least 10 to 20 per cent might have made a better choice of career.

66. The Gifted Child in the American Culture of Today *

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Meeting the needs of gifted children involves more than discovering who can be so classified and then planning a special program. One issue too frequently neglected is the effect of modern American culture on educational planning for gifted children.

Margaret Mead has posed some sociological questions in this area: How do American attitudes toward success and failure, luck and happiness, and "natural" ability in athletics vs. academics affect the problem of meeting the needs of gifted children? What in the historical heritage of America makes the problem of educating the gifted so difficult?

The gifted child, in school, at home, and among peers has to deal with American attitudes towards success and failure, towards

* Reprinted and edited from *The Journal of Teacher Education*, 5: 211-214, September 1954, with the permission of *The Journal of Teacher Education* and Margaret Mead.

luck and happiness, towards inalienable and irreversible hereditary traits versus those that can be modified by environment, and towards continuities versus discontinuities in ability.

American culture combines a Puritan attitude towards success—"making good," the reward of hard work, postponement of pleasure, and exercise of virtue—with a belief that if success is excessive and conspicuous, it is the result of luck. Success that is the reward of application and hard work is approved fairly ungrudgingly, although there is a persistent preference for recognizing success in another field rather than one's own.

This grudging willingness to recognize success within one's own field—of sport, scholarship, business, the arts—is congruent with the narrowness of the American competitive range; fourth graders compete with other fourth graders from the same kind of school, members of minor leagues with members of other minor leagues, and television actors with television actors. Within this narrow range, competition is keen and the rewards are regarded as limited, so that one person's gain is another's loss. Outside the narrow field of direct competition, Americans enjoy and reward success, but continue to make a distinction, on the one hand, between the Horatio Alger type of success in which a proper amount of time is spent selling newspapers in the cold dawn, grinding out the arithmetic examples in grade after grade, feeding the rats for the chemistry professor, suffering on every approved stage of the ladder—and, on the other hand, startling rises to stardom in which no such hard work is involved. Wherever the rise to success cannot be equated with preliminary effort, abstinence, and suffering, it tends to be attributed to "luck," which relieves the spectator from according the specially successful person any merit.

Then, although happiness and success are often used interchangeably there is an increasing emphasis in American life on happiness, defined as "enjoying life, living among friends who live the same way I do," contrasted with success which takes too much out of you, kills you at forty, or "being a brain and missing all the fun." Any degree of outstanding success is represented as cutting one off from the group so that it becomes fashionable not to get better grades than the others, not to be too good, not to go up too fast. These pressures for keeping on all fours with one's classmates, neighbors, business associates, which are increasing in American life, tend to be particularly felt in the school

age groups, especially in the case of the child who shows intellectual or artistic gifts.

Athletic abilities, more conspicuously due to physique which to some extent is recognized as "natural," i.e. hereditary, is less difficult to handle. But even here complications may arise, for the boy who takes his success for granted may be punished for always winning by both teachers and peers and in turn become self conscious, unsure of himself, or intolerably boastful as a form of reassurance.

A second difficulty in handling giftedness comes from our democratic American preference for recognizing only those elements in a situation about which something can be done. This attitude reflects two important historical situations, the empty landscape which our forefathers found here—a landscape which could be built on, farmed, landscaped, in any way the new settlers pleased—and the extent to which adults came to America so that their children could have a different life. So, as a people, we have learned to "fix" anything we don't like, rather than to "cope" as the British do—"fix" being defined as changing the environment, "cope" as changing one's character so as to deal with the environment. Americans think coping is dull, unenterprising, old-fashioned. If something is wrong, fix it! If you have a birthmark, no chin or an unfortunately prominent nose, don't groan, go to a plastic surgeon. If you are shy, learn how to make friends; if you are a slow reader, improve your reading speed; if you have a poor memory, take up a system! The homely girl today is no longer expected to be a wall flower, sing in the choir, and do the dishes after parties. She is expected to "make something of herself," sometimes euphemistically defined by beauty culture schools, as "learning to be the way nature meant you to be," thus combining a premium on the natural with an insistence on the hard work which will finally produce a natural effect. Americans' persistent bad conscience about types of race relations which have condemned part of the population to characteristics that are inalienable and irreversible, and not their own fault, is an example of the same set of values.

Still another part of our historical heritage as a culture built by adults who came from many different cultures, is our tendency to level any disparate set of values, or discontinuous set of gifts, down to one series so that they can be compared in the same units, dollars, grades, size of neon lights, and number of inches of newsprint. This national

habit which has often misled foreigners into thinking that everytime we mention the dollar value of something we are grossly materialistic, is understandable enough in the light of our history. As immigrants from all over the world, many illiterate, many from ancient and exotic cultures, jostled each other in the market place and sent their children to the same schools, the need for some new currency of conversational exchange and comparison was very great. So mothers who could not understand what their children were learning at school, learned readily to discuss A's and B's over the back fences, and jobs and careers intrinsically unintelligible came to be evaluated in terms of the salaries they paid.

By using grades or dollars or ratings, neon lights or inches, people can grasp and compare disparate things, but use of such methods also tends to wipe out the kinds of incomparabilities and discontinuities between different realms of life, between athletics and scholarship, business, the arts and religion. Brawn, brains, business acumen, the ability to write a sonnet, paint a landscape or compose a symphony, or arouse a congregation to a sense of their sins, are all placed on the same scale. This desire to compare also leads to looking at one or two attributes at a time, so cities are compared as to size, rate of growth, juvenile delinquency rate, or number of new businesses and only occasionally is it recognized that cities have composite personalities of their own which cannot be placed so easily on single scales.

This then is part of the cultural background with which we have to come to terms in dealing with the problem of the gifted child. In American education, we have tended to reduce gift to a "higher I. Q."—thus making it a matter of merely a little more on a continuity scale, to insist on putting more money and effort in bringing the handicapped child "up to par" as an expression of fair play and "giving everyone a break"—and to disallow special gifts. At present there are many large high schools where no effort is made to encourage the gifted student to go on to college or for special training because "it isn't democratic to emphasize such things when most of the students won't be able to go." By this refusal to recognize special gifts, we have wasted and dissipated, driven into apathy or schizophrenia uncounted numbers of gifted children. If they learn easily, they are penalized for being bored when they have nothing to do; if they excel in some outstanding way, they are penalized as being conspicuously better than the peer group, and teachers

warn the gifted child, "Yes, you can do that, it's much more interesting than what the others are doing. But remember, the rest of the class will dislike you for it." And there is in America today an appalling waste of first-rate talents, while the slightly superior people just because they do have to work hard to get straight A's, are forgiven.

Meanwhile the parents of gifted children are terrorized with behests to bring their children up to be normal happy human beings, and told horror stories about infant prodigies who go mad at twenty. In American psychology the theory of "special gifts" competes and loses before two more congenial theories, (1) the theory of a general superiority factor, which makes you into an all-around superior person, in sports as well as in scholarship, in business or in music, or, (2) the specially gifted who are penalized by accusations of neuroses, and interpretations which make all special interests in childhood and adolescence into symptoms of trauma or psychological morbidity. Under these conditions it is not surprising that, as an English critic has acutely remarked, "The United States has more promising young people who fizzle out than any other country." First efforts, if they are recognized at all, are tailored into normal success terms, given prizes, published, exhibited prematurely, and forgotten.

This is admittedly a grim picture—a startling grim picture especially when one realizes that parents all over the world dream of making it possible for their children to be born in America, the country where there are the resources and the freedoms necessary for the good life.

What as educators can we do about the situation, about recognizing and fostering those special, hereditary, discontinuous, incredible gifts which once in many centuries produce a Shakespeare, an Einstein, or a Leonardo da Vinci, an Abraham Lincoln or a St. Thomas Aquinas, and without whom a society, no matter how rich and industrious will stagnate in the end?

In the first place, we have the culture with us the minute we have stated the difficulty, for as Americans, "the possible we do at once; the impossible takes a little bit longer." Furthermore as Americans, we feel a moral obligation to remedy our defects. If it is true that we are at present lamentably poor in fostering genius, then it is obvious that we had better recognize what the obstacles are and proceed to clear them away. So that the clearer the facing of the number of culturally regular myths about the desirability of normalcy, the undesirability of skipping

stages—especially if those stages are places where one can be miserable as one's predecessors have been miserable—the better.

But such recognition is only a first step, because most of what a wise teacher or counselor tells the parents of a gifted child is true, culturally speaking. The culture tries to make the child with a gift into a one-sided person, to penalize him at every turn, to cause him trouble in making friends, and to create conditions conducive to the development of a neurosis. Neither teachers, the parents of other children, nor the child's peers will tolerate the *Wunderkind*. The task for the school becomes then a redesigning of the school situation in such a way as to both protect and foster the gifted child. The device of having special science high schools or music and arts high schools is one such solution. The gifted are placed among their near peers—when chosen from a large enough area—and the school is represented to the outside world as requiring tremendous work to get into. But the little child, equally in need of fostering, cannot be represented as having had to work, and suffer, for any special education. In the school where the gifted child must be educated among other children—which has many advantages for social adjustment—perhaps one of the best answers is such diversified, socially approved activities, that a gift is highly used but still not too conspicuous in the school setting. The school orchestra, with a large number of members who play instruments demanding different skill levels is one kind of model, within which the musically gifted can fit, "contribute to the group," "be a member of a group," "work" and conceivably get some access to music.

The more diversified, the more complex the activities within which children are encouraged to play a role, the better chance for the superlatively, discontinuously gifted child to exercise his or her special talent. Any activity where comparison on a single scale disappears, where the gifted is given a spot in which he can put his incomparably greater energy, imagination, drive into an activity without coming into destructive competition with his classmates, the better. School evaluation programs which included the idea of the conservation of precious resources so that ability to spot, protect and cherish the gifted became a matter of pride among educators, would also help.

But most of all, more than protection from active discouragement, much more than rewards and praise, the gifted child needs scope, material on which his imagination can feed, and opportunities to exercise it.

He needs inconspicuous access to books, museums, instruments, paints, ideas, a chance to feed himself with the accumulated heritage from the genius of other ages. He needs a chance for contact, however fleeting, perhaps only on television or in a special movie, with those who are masters in the abilities with which he has been specially endowed. And within our sternly Puritan tradition, he may well need also, a special sense of stewardship for the talents which he has been given, an explicit moral sanction against selling his birthright for a mess of pottage.

67. Identifying Gifted Children *

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Although identification is not the sole problem in planning for the education of gifted children, it is a major one. Regardless of the definition used, identification of the gifted requires careful evaluation and systematic procedures. Robert F. DeHaan discusses such questions as the following: What are the values of a systematic program of identification? Who should be involved in such a program? What are some of the general approaches used in locating gifted children?

Suppose a teacher is casually observing the children passing by in the hallway on their way to their classrooms. Approximately one out of ten of the children passing before his gaze has sufficient mental ability to be designated as "gifted" and in need of special educational opportunities to develop his ability; another one out of ten has artistic ability that warrants the provision of special educational programs; still another one out of ten has unusual musical ability; and similar ratios of the children have dramatic talent, creative writing ability, mechanical

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skills. Many children have two or three talents that place them in the upper 10 per cent of their age group. By the time five hundred children have passed by the teacher, he will have looked at approximately one hundred who can be considered gifted in at least one important way.

The teacher would not be able, by casual observation only, to distinguish the gifted pupils from the others. The gifted are not staggering under a towering load of books. Neither are they blundering along the fringes of the group trying unsuccessfully to "get in" with other children, as is sometimes supposed to be true of them. On the contrary, they are quite as carefree and as well adjusted as any children in the hallway; hence the need for inaugurating methods of identifying them.

Identification consists in the process of screening children by means of standardized test procedures and/or observational methods and selecting the superior children for educational programs designed particularly for them. The purpose of the procedure is to enable educators to decide whether special educational provisions should be made for a given child and, if so, what kind of special opportunities should be provided. The purpose is not to tie on the child a tag that will stay with him the rest of his life, for better or for worse. Neither is identification a goal in itself. It is a means to the goal of getting each gifted child into the educational program most suited to develop his capacities and his whole person.

Procedures for identifying gifted children should be functional, systematic, and inclusive. The identification procedures should be geared into the over-all testing program of the school. All the children should be tested at regular intervals with a wide range of tests so that numerous kinds of abilities can be found. Without this kind of identification program, it is likely that a considerable number of able children will be overlooked.

Additional benefits accrue to the school system that employs systematic, inclusive identification procedures. Since many of the screening devices used to discover gifted children are inherently stimulating to all children, they enhance the instructional program in the classroom. For example, teachers and children so enjoy some of the fine-arts tests that they want to continue them long after the testing period is concluded. The procedures of identification help to tailor the educational program to fit the particular combination of abilities of each gifted child by providing indispensable information about him. Almost invariably, a

good identification program stimulates teachers and administrators to do something for the children they have identified.

A good identification program should discover other characteristics of gifted children besides their aptitudes and capacities. The *interests* of gifted children are important in a program for these children. "Interests" are any activities in which the child prefers to engage when given a free choice. These interests often point to activities which will motivate a pupil, and they can sometimes be used as a springboard to extend his participation into other activities.

Another important kind of information to have about gifted children is their academic achievement, the level at which they are successfully performing on specific learning tasks.

Other factors, such as *motivation*, *personality*, and *social* factors, can and should be tested and observed in order to round out the picture of a given child and to provide important leads for his educational program. In this connection it is important to assess such personality factors as the amount of withdrawal or aggression in a child's behavior. If the child is extreme in either of these behaviors, his aptitudes may never show through enough to be recognized and appreciated. Social factors, too, are important. Some children from lower social and economic groups and from certain racial groups may be so deprived of cultural stimulation in their homes and neighborhoods that their potential aptitudes are present only to the most observant eyes.

Two general approaches can be used to identify gifted children: standardized tests and systematic observations. Some abilities are best identified by use of objective tests; others can better be discovered through observations; and still others need an approach combining both methods. Some educators prefer one approach over the other, but, in general, best results are obtained from a maximum use of both. An example of the intensive use of both approaches is found in the Youth Development Project carried on in Quincy, Illinois (1).¹

Of the many kinds of standardized tests now available, one of the most familiar is the standardized group intelligence test. Tests of this type are particularly valuable for the first rough screening. It is important to administer these tests fairly regularly in the school career of a given child. Some school systems give group intelligence tests every two or

¹ Numbers in parentheses refer to items in the list of references at the end of the article.

three years. Additional information about the intellectual level of a child can be gained by use of individual intelligence tests. The individual test usually gives a more reliable measure of intelligence than does a group test, and hence increases the confidence in the accuracy of the identification procedures. Some schools routinely examine all candidates for special classes for the gifted with an individual intelligence test.

Tests of specialized abilities will supply a fuller understanding of an individual pupil or will select pupils for certain specialized courses. There are standardized tests of such skills as clerical ability, mechanical aptitude, and some kinds of motor aptitudes. Their usefulness is much more limited in the education of gifted children than the tests of intellectual abilities.

Many kinds of interest inventories are available for use in an identification program. Some inventories inquire directly into the child's interests. Others are more indirect, using incomplete sentences which the child completes. Still other interest inventories ask the child to list his activities both in school and out of school. Vocational interests are of great importance, for adolescent boys in particular, and vocational-interest inventories can be used to discover those interests.

Achievement tests are probably the most commonly used of any kind of educational test. In addition to measuring achievement in reading, spelling, arithmetic, language, and science, they may be used to discover academic disabilities of gifted children and to point the way for remedial work or special emphasis in teaching.

Since personality factors are often taken into account in selecting pupils, personality tests are important in an identification program. These tests also yield supplementary data which can be used in counseling and guiding children in planning their educational program.

Abilities in the fine arts can best be identified by a method which combines some features of standardized tests and some aspects of personal observations. This method consists in obtaining a "work sample," which is rated for excellence by a panel of expert judges. Such a method probably provides the best procedure available for screening youngsters with aptitudes in the fine arts—graphic arts, music, writing, dramatics, dancing, and mechanics.

The "work-sample" method has been developed primarily in the pilot schools participating in the gifted child program in Portland, Oregon. Procedures are used to discover children with abilities in art,

creative writing, music, dramatics, physical aptitudes, and mechanical skills. The intent of the procedures is to identify the most talented pupils (the upper 10 per cent) in each of the fine arts.

The procedure for screening children with creative writing ability will illustrate how such procedures are used in the other fine arts as well. The creative writing exercises are designed for fifth- and sixth-grade classes. Five such exercises are given, one each week for a period of five weeks. Each exercise is completed in one school period. Discussions and comments are avoided once the class has begun to work on the exercises. The exercises are (1) developing expressive sentences, (2) developing a paragraph from a stimulus sentence, (3) writing a story from descriptive phrases, (4) describing a real-life experience, and (5) writing an imaginative composition.

The written products are rated by the classroom teachers on a five-point scale according to criteria previously given them. Teachers are asked to look for creative thought and expression rather than excellence in the mechanics of writing. They are told that the number of creatively gifted children in a classroom may vary from one to seven or eight but that, as a general rule, there will be from one to three. The papers are judged on the following criteria: originality of ideas, depth of understanding of emotional situation, choice of expressive words, conciseness of expression, developmental logic present in sentences, good paragraph development (when appropriate), well-planned plot (when appropriate), maintenance of a point of view.

Talents in the other fine arts and in practical skills such as mechanics can be identified by this basic method of having a group of experts judge the products of the children. The product must be obtained from the children under as standardized conditions as possible. The experts can work singly or as a panel. It is important that they be given training in what to look for and objective criteria by which to judge the level of performance of each child.

In addition to the standardized tests of intelligence and the semi-standardized tests in the fine arts described above, observation is an important method for identifying able children. The role of human observation and judgment in screening and selecting is a major one. Almost every program of identification includes teacher observations and judgments among the procedures (2).

Teachers' observations and judgments are particularly appropriate

for identifying children's talents that are expressed rather consistently but not necessarily intensively. Examples of such talents are leadership and friendship, which can be observed in children every day. Most teachers, moreover, can readily observe a wide variety of talents as children engage in the many kinds of educational experiences provided in the classroom. Teacher judgments can also be used to identify talents of types for which good tests are not available and to corroborate and correct the evidence obtained from the results of standardized tests.

For the most effective use of teachers' observations as talent-identifying procedures, teachers should be provided with behavioral descriptions of children's characteristics that are valid clues to the talent for which he is looking. More reliable results are obtained when a teacher observes many specific behaviors related to a given talent than when he makes a global, over-all judgment about a child's abilities. The latter method covers up many specifics that, if noted, help make the teacher's judgment reliable. Some school systems have set up guides for teachers to follow in making observations, which present descriptions of behavioral characteristics for all important varieties of talent as well as for scientific and intellectual abilities (3). A modified forced-choice instrument called the Behavior Description Chart was used in Quincy, Illinois, to aid the teachers in identifying ability in social leadership (1, 24-32). The instrument presented eighteen groups of five items in each group, and the teacher was asked to mark the item among the five which was *most like* and the one which was *least like* the child under consideration.

Given this kind of guidance and training in observing, teachers may become adept in recognizing and identifying children with unusual abilities of many kinds. One of the important bonus benefits obtained from teachers' observations is that observation tends to make the teachers more sensitive to individual differences in children and more aware of giftedness.

Another source of systematic data for screening purposes is children's observations of one another. Because of their contacts in situations quite removed from the classroom, children can provide information that is ordinarily unavailable to the teacher. These observations by youngsters can best be obtained by familiar sociometric devices. Children can be asked to identify almost any talent or aptitude that a teacher wishes to discover, from intellectual ability to mechanical aptitude to social leader-

ship. The teacher needs only to present the children with descriptions of behaviors which it is possible for them to observe and behaviors which are truly symptomatic of the talents he wishes to identify.

Probably no one knows as much about a given child as do his parents. However, parents' knowledge is often unsystematized and unevaluated. Parents rarely have any way to judge the quality of the ability of their children and hence may be likely to make large errors. Nevertheless, the information that parents have about their children supplies valuable supplementary data to corroborate the results of tests and teachers' observations or to provide decisive information in some borderline cases where tests and observations are inconclusive. Information from parents' observations can be obtained through conferences or by means of questionnaires.

Screening is an ongoing process that is never completely finished. Even if the identification procedures used in elementary schools are adequate, efforts to identify gifted children should be continued in the secondary schools. It may happen, for instance, that a pupil needs the combination of physical and social maturation, interesting high school curriculum, and masterful teaching to motivate him to put forth his best efforts in a given endeavor. This combination of circumstances may be missing from the lives of a significant number of pupils until they reach high school or even college. It is important for high school teachers and guidance counselors to use the information that was obtained in the elementary school. Data gathered in an identification program should not be allowed to gather dust.

The names of all the children selected as gifted should be drawn together on a master roster. This represents the group for whom special provisions are to be made. An individual card could be set up for each selected child, summarizing the test results and the special provisions made for him. The card should follow the child throughout his school career. Test information can be used judiciously for guidance of the child, his teachers, and parents.

This article has described the main outlines of a total program for identification of gifted children. The teacher will know the pattern of the able child's ability, his interests, and his personality characteristics. The teacher will also be able to point out other talented children and to give some account of their aptitudes, their interests, their achievement.

Such identification of gifted children and knowledge about them are indispensable if teachers are to provide the kinds of special programs needed to develop the capabilities of gifted children to the fullest extent.

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68. Current Practices in Educating the Gifted Child *

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Once the gifted have been identified, the schools must determine how their educational needs can best be met. Paul Witty reviews the approaches currently employed to meet the educational needs of gifted children and attempts to evaluate their success.

Education of the bright and promising child is as old as education itself. Depending on the values of each culture throughout the ages, the education of the gifted has varied. In some groups, opportunities for apprentice work and special training were given the more able and promising youth. In others, preparation was made for specific responsibilities, suitable to the aims of the period and the group. For example,

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Plato suggested that capable youth be identified and given appropriate training to become soldiers and leaders of The Republic.

It is only since the appearance of the intelligence test that it has been possible to identify the gifted child readily and to experiment with programs designed to foster his full development. Recently much thought has been given to planning school programs for gifted pupils in the United States.

The Intelligence Test and the Study of the Gifted

A significant factor in promoting interest in the gifted in this country was the advent of practical tests for the measurement of intelligence, as has been stated. Another factor was the development of child study techniques designed to reveal the nature and needs of children. The name of Lewis M. Terman is conspicuous in both areas.¹ For he and his associates devised the Stanford-Binet intelligence test and developed and refined child study techniques.

After the large-scale use of intelligence tests, several psychologists were attracted to the *extreme* cases; at first to the dull and slow-learning and later to the very bright and gifted children. More than three decades ago, Lewis M. Terman, Leta Hollingworth, and the writer identified groups of gifted children and assembled data concerning their physical development, their social status, and their educational attainment. The results of these studies of children at or above IQ 130 agreed closely.

Nature of Gifted Children

Contrary to popular thought, gifted children were shown, on the whole, to be somewhat above the average physically and socially. They were superior to their classmates of similar age in size, strength, and general health. The idea that they were physically retarded, unsocial, spectacled, "booky" misfits was disproved.²

¹ Lewis M. Terman and Maud A. Merrill, *Measuring Intelligence: A Guide to the Administration of the New Revised Stanford-Binet Tests of Intelligence* (Houghton Mifflin, 1937); L. M. Terman and others, *Genetic Studies of Genius*, Vols. I, II, III, IV (Stanford University Press).

² Leta S. Hollingworth, *Gifted Children: Their Nature and Nurture* (Macmillan, 1926); L. S. Hollingworth, *Children Above 180 IQ* (World Book, 1942); Paul Witty, "A Genetic Study of Fifty Gifted Children," *The Thirty-ninth Yearbook of the National Society for the Study of Education*, Part II, 1940, pp. 401-409.

The academic development of gifted pupils was not typically one-sided. Although they were generally superior, they did their best work on tests of reading and language; their poorest attainments were in handwriting and spelling. Their superiority in reading was especially noteworthy. Nearly half of Terman's group of gifted children learned to read before entering school; 20 per cent before they were five; 6 per cent before four; and nearly 2 per cent before three.³

In all investigations, extreme rapidity of learning proved to be a characteristic of the gifted child. His attainment in school subjects was sometimes phenomenal. In several studies it was reported that by the time the gifted pupil was ten years of age, he had, on the average, knowledges of pupils in classes two or three grades above his own. Yet he was seldom accelerated or offered an enriched program of study. Almost without exception, studies made during the period 1920-1945 showed that the schools were making little provision for gifted children.

Neglect of the Gifted

The present resurgence of interest in the education of gifted children is traceable to a considerable extent to the influence of three books about the gifted. Terman and Oden's *The Gifted Child Grows Up*, published in 1947, presented facts which revealed the potentialities and, to a considerable extent, the neglect of gifted children and youth. The short treatise "Education of the Gifted," published in 1950 by the Educational Policies Commission of the National Education Association and the American Association of School Administrators, was widely read by educators. In this volume the need was stressed for helping more gifted children and youth to realize their potentialities. In 1951, *The Gifted Child*, a comprehensive treatment of the nature and needs of the gifted child, with recommendations for his education, was presented by the American Association for Gifted Children. This book and the other activities of the Association had far-reaching effects upon school people generally.

The gifted pupil in the elementary school is now being given greater attention, and, in many secondary schools, efforts are being made to

³ Lewis M. Terman and Melita Oden, *Genetic Studies of Genius: Vol. IV, The Gifted Child Grows Up* (Stanford University Press, 1947).

provide more suitable curricula for the superior student.⁴ Yet these efforts are inadequate in terms of the extent and importance of the issue. In fact, many gifted pupils are still not identified in our elementary schools; and in the high school, many other such students "languish in idleness" through the four years and fail to develop the ambition or work habits essential for profitable college careers. Moreover, many gifted students drop out of high school. It is estimated that not more than 50 per cent of the total number of gifted pupils who graduate from high school in many states go on to college. And probably a third or more of gifted young people leave college with an inadequate amount of education to qualify them for the best use of their abilities.

The National Manpower Council estimated in 1951 that one fourth of our 18-year-old youth had IQ's 110 or above. Of this fourth, 60 per cent did not enter college and 20 per cent did not complete high school. Of the 40 per cent that entered college, only about one half graduated.

According to a recent newspaper report, President Henry of the University of Illinois, after pointing to the "gross under-utilization" of some of the nation's highest talent, states:

Of 2,250,000 young people who reach the age of 18 each year, 152,000 . . . 7 per cent . . . have a rating of ability higher than that of the average college graduate. . . . Only a little more than half of them enter college, and fewer than half finish. Two per cent receive doctor's degrees.⁵

The recent resurgence of interest in gifted or "rapid-learning" pupils has included emphasis on stimulating leadership in science. It has, of course, been demonstrated that there has been a great waste of such pupils' ability. For example, Robert H. Knapp and Hubert B. Goodrich⁶ have stressed the need for early identification and guidance of capable students.

⁴ For additional accounts of this work, see interview with Paul Witty, "Today's Schools Can Do Much More for the Gifted Child," *The Nation's Schools*, February 1956.

⁵ *Chicago Sun Times*, Friday, September 23, 1955.

⁶ Robert H. Knapp and Hubert B. Goodrich, *Origins of American Scientists* (The University of Chicago Press, 1952).

Acceleration as a Method of Caring for the Gifted

Some educators stress the desirability of offering gifted pupils broad and diversified opportunities. Others recommend widespread adoption of acceleration, and still others endorse acceleration only as a temporary expedient and partial solution of the problem. If acceleration is practiced to excess, there is fear that the gifted pupil will become mal-adjusted socially.

As early as 1933, Witty and Wilkins summarized the literature on acceleration and found that moderate amounts of acceleration seemed justifiable for the gifted.⁷ J. W. Trusler later recommended more frequent grade-skipping for pupils of IQ 125 and above.⁸ This recommendation seems to be in accord with suggestions drawn from genetic studies which show that acceleration in the elementary school up to two full grades is not associated with the undesirable later adjustments in the gifted. Recently S. L. Pressey studied some relationships of acceleration to success in college and concluded: "The evidence was practically unanimous that younger entrants were more likely to graduate, had the best academic records, won the most honors, and presented the lowest disciplinary difficulties."⁹

It should be pointed out, however, that the use of acceleration has not been popular among American educators. Several reports reflect the doubt shared by many administrators, supervisors, and teachers concerning the practice—particularly at the high school level.

An excellent summary of studies in this field has recently been written by Dean A. Worcester, who stresses the values of acceleration:

1. First of all, acceleration recognizes the facts of life. Children do differ from each other markedly. Some develop much more rapidly than do others. Usually those of greater academic potentialities are also more mature socially and emotionally and fully as well developed physically.

⁷ Paul Witty and W. Laroy Wilkins, "The Status of Acceleration or Grade-skipping as an Administrative Practice," *Educational Administration and Supervision*, 19: 321-346, May 1933.

⁸ J. W. Trusler, "Pupil Acceleration in the Elementary Schools," *Grade Teacher*, 67: 16-17, 96-98, October 1949.

⁹ S. L. Pressey, "Educational Acceleration: Appraisals and Basic Problems," *Bureau of Educational Research Monographs No. 31* (Ohio State University, 1949).

2. Failure to accelerate involves dangers. There is evidence to show that gifted children who are held back with those of their C. A. (chronological age) are more likely to develop behavior and personality problems than those who are accelerated. There is danger also of promoting lazy and careless work habits among those who are educationally beyond their classmates but who are held back with them.¹⁰

The time when acceleration is best practiced has not been investigated extensively although, as previously stated, it has been generally shown that acceleration of two years is not usually associated with undesirable results in gifted children and youth. Worcester states:

This writer advocates early entrance, with a provision for later acceleration for those who were not identified for early entrance and for those whose capabilities have become so developed that they are no longer working efficiently in their present group. The senior high school-freshman college years seem to offer one of the best possibilities for later acceleration.¹¹

One of the values of acceleration is the avoidance of duplication in courses taken by gifted pupils. The School-College Plan (Ford Foundation), involving Andover, Exeter, Lawrenceville, Harvard, Yale, and Princeton, was developed to avoid duplication in the offerings of colleges and of preparatory schools.¹² As a result, a recommendation was made that superior students of good emotional stability, health, and social adjustment be permitted to take the normal eight years of high school and college in seven years. Another Ford-sponsored program, The Program for Early Admission to College, involved four hundred students admitted in September, 1951, to twelve colleges prior to their graduation from high school. Four hundred more were admitted in September, 1952. It appears that the adjustment of the students to the advanced work and to other requirements was satisfactory.

The School and College Study of Admission with Advanced Standing, under the executive directorship of William H. Cornog, has ex-

¹⁰ Dean A. Worcester, *The Education of Children of Above-Average Mentality* (University of Nebraska Press, 1955), pp. 33-34.

¹¹ Dean A. Worcester, *op. cit.*, p. 36.

¹² Morris Meister, "Ford Foundation Experiments: Their Implications for the Science Education of High-Ability Youth," *Science Teacher*, 20: 107-110, April 1953.

explored ways to develop curricula for high school pupils of high ability which will lead to advanced standing at college.¹³ All these efforts aim to challenge the gifted student to use his ability effectively.

It is possible for a pupil of high ability to be accelerated as much as two years in the Baltimore schools. For example, the bright pupil has an opportunity to complete the three years of junior high school work in two years at the Robert E. Lee School. He can enter the advanced preparatory course at one of three high schools. In this way, pupils save the equivalent of a year in college. This program has been in operation for approximately fifty years. Colleges such as Cornell, Oberlin, Smith, and Goucher accept these accelerated pupils into their sophomore classes.

Special Classes for the Gifted

During the past ten years a strong interest in special classes for the gifted has emerged, and many programs are being initiated in which gifted pupils are placed in such classes. Of course, much of this work is influenced by the earlier contributions from cities such as Cleveland, Ohio; Los Angeles, California; Allentown, Pennsylvania; and New York City.

Two of the best known efforts to provide for the gifted have taken place in Cleveland with its Major Work Classes,¹⁴ and New York City in the Hunter College Elementary School.¹⁵ A diversified curriculum is offered in both programs. One of the characteristics of the Cleveland program is the emphasis given to the social development and adjustment as well as to other "developmental needs" of the gifted child. Similarly, in the Hunter College Elementary School, careful planning assures the well-balanced growth of each child.

In Indianapolis pupils who have an intelligence quotient of 130 or above on the basis of tests are considered for special classes. Gifted pupils complete the work in the regular course of study, but their program is enriched and expanded. It is believed that "this program of

¹³ William H. Cornog, "School and College Study of Admission with Advanced Standing," *Bulletin of Information* (November 1952), pp. 1-17. (220 Wilford Building, Philadelphia 4, Pa.)

¹⁴ Theodore Hall, *Gifted Children: The Cleveland Story* (World Publishing Company, 1956).

¹⁵ Gertrude H. Hildreth in collaboration with Florence N. Brumbaugh and Frank T. Wilson, *Educating Gifted Children* (Harper, 1952).

enrichment has many advantages over the practice of acceleration or 'skipping' grades." For example:

The gifted child's study program is designed to increase his knowledge, power, skill, alertness, and efficiency beyond what could be done in a regular classroom. This is accomplished through additional work in literature, history, science, and social studies. Regular subject matter is expanded through teacher-pupil conferences, educational excursions into the community, special research projects, and individualized instruction.

Pupils are given freedom to explore and to experiment in academic areas in which they are especially interested. They develop their ability to think and to evaluate critically.

The study of French begins in the fifth grade and the fundamentals of typing are taught in the seventh and eighth grades. Many other special skills are developed by pupils and teachers working together.¹⁶

Another type of program that has received much attention recently is characterized as "partial segregation." In the Colfax Elementary School of Pittsburgh, "partial segregation" enables the gifted pupils to spend half the school day in a "workshop" designed to extend worthwhile interests and foster academic progress.¹⁷ Here children plan, discuss their projects, and learn to work together. Among special opportunities are the study of German and the stimulation and extension of various interests through research. Hedwig O. Pregler, principal of the school, states:

The mentally superior child is defined as one measuring 130 or more on the Stanford-Binet Test and showing advanced achievement.

In the primary grades all children spend the first half of the morning with their regular classes, at which time they have their social activities, sharing of experiences, music, games, safety and character education, and similar things normally done by an entire group. Midway through the morning, the children move into their skill subjects, at which time the mentally superior children leave for their Workshops.

¹⁶ "The Gifted Child in the Indianapolis Public Schools," Board of School Commissioners of the City of Indianapolis.

¹⁷ Hedwig O. Pregler, "Adjustment Through Partial Segregation," *National Elementary Principal*, 32: 241-246, September 1952.

In the upper grades the school is run on the platoon plan. The gifted children leave class when the group goes to the academic teacher and rejoin it for the special subjects, like art, music, and physical education.

The purpose of the Workshop is to develop mentally gifted children in all aspects of their giftedness, individually and in a group of mental peers.¹⁸

Enrichment in Regular Classes

There has been a reawakening of interest in providing for the gifted in regular classes. For example, Marion C. Sheridan has suggested some ways in which an English teacher can enrich the curriculum for superior students in a regular class.¹⁹

In an article presenting activities for the gifted pupil throughout the elementary and secondary school, Buck R. Rex, Jr., stresses the work of consultants and committees; the role of creative pursuits; the ways of planning and evaluating endeavor at various levels.²⁰ It is generally conceded, too, that one desirable means of providing for the gifted within the heterogeneous class structure is through differentiated assignments. However, with constantly expanding enrollments, it is becoming increasingly difficult for a teacher to provide opportunities for the different levels of ability in the regular classroom.

One of the most valuable aids to the classroom teacher is the *Guidance Handbook, Part I*, in which suggestions are given to help the classroom teacher identify the gifted child. *Part II* includes practical suggestions for classroom activities appropriate to challenge such pupils.²¹

Additional help may be found in a number of other sources—particularly for fostering reading and for stimulating language expression

¹⁸ In Robert J. Havighurst, Eugene Stivers, and Robert F. DeHaan, *A Survey of the Education of Gifted Children* (The University of Chicago Press, November 1955), pp. 94-95.

¹⁹ Marion C. Sheridan, "Teaching English to Superior Students," *National Education Association Journal*, 41: 566-567, December 1952.

²⁰ Buck R. Rex, Jr., "The Gifted Child in the Heterogeneous Class," *Exceptional Children*, 19: 117-120, December 1952.

²¹ Jack Kough and Robert DeHaan, *Teachers Guidance Handbook, Part I*, Identifying Children Who Need Help (Science Research Associates, 1955, elementary edition); Jack Kough and Robert DeHaan, *Teachers Guidance Handbook, Part II*, Helping Children with Special Needs (Science Research Associates, 1956, elementary edition).

in gifted pupils. The April 1956 issue of *The Reading Teacher* had as its theme "Reading and the Gifted Child and Youth." Many practical hints are given in this issue for enriching the reading of the gifted child in the regular classroom.

Guidance and Counseling of the Gifted

Some writers emphasize the value of counseling in the education of the gifted pupil. Ruth Strang has stressed the need for early identification of the gifted and for continuous help in meeting their problems. Some of the common problems are cited as well as some procedures which may be employed by counselors. The significance of the home is also stressed.²²

Enrichment in the Special Fields

The writer, in collaboration with Samuel W. Bloom, has described programs in science for the rapid-learning pupil.²³ The programs include the outstanding endeavor in the Bronx High School of Science, the Forest Hills High School, the Monroe High School (Rochester), the Evanston (Illinois) Township High School, and the work in Baltimore, in New York, in Phoenix, and in Los Angeles and other California cities.

Various other types of opportunities are being offered the gifted pupil in the field of science. Morris Meister, principal of the High School of Science, New York, stresses the fact that the High School of Science is a school in which science is being used as one of the tools by which a more liberal education is obtained. The high school is organized "around a purpose that is meaningful and attractive to the students." A specialized high school can thus provide a more flexible curriculum and offer a larger number of electives.

Paul Brandwein has described a program in Forest Hills, New York, in *The Gifted Student as Future Scientist*. In this provocative book, he discusses the problem of meeting the needs of the potential scientist and sets forth a curriculum designed to meet these needs.²⁴

²² Ruth Strang, "Guidance of the Gifted," *The Personnel and Guidance Journal*, 31: 26-30, October 1952.

²³ Paul Witty and Samuel W. Bloom, "Science Provisions for the Gifted," *Exceptional Children*, 20: 244-250, 262, March 1954.

²⁴ Paul F. Brandwein, *The Gifted Student as Future Scientist* (Harcourt, Brace, 1955).

As a result of returns from a questionnaire, the writer, in collaboration with Samuel Bloom,²⁵ described the curricula of additional schools whose work in the field of science was outstanding. Attention was directed to the role of the teacher as a crucial factor in the successful stimulation of gifted children and youth. In this article emphasis was given to the problem of training adequate numbers of teachers and the difficulty of holding capable teachers, especially in fields such as science, under prevailing conditions in our schools. The problem of teacher training emerged as one of the primary issues in the education of the gifted.

A Broader Definition of Giftedness

One of the most outstanding developments in the field of the gifted is associated with a broader concept of giftedness. There is a concern today for studying children whose mental ability, although superior, may not be revealed by an intelligence test.

Expression is blocked in some gifted children by strong emotion or by insecurity traceable to deprivations at home. In communities which offer children very meager opportunities, the expression of intelligence may be different from that found in more fortunate areas. Moreover, there are children whose abilities in art, music, or writing, though rare and distinctive, can be recognized only by performance.

Perhaps it is desirable to broaden our definition and to consider any child as potentially "gifted" whose performance in a valuable line of human activity is consistently remarkable. Abundant opportunities should be offered in both home and school for the release and expression of such abilities.

There is an increased tendency to think of the gifted in terms of this broader definition. In an experiment now under way in Portland, Oregon, teachers' judgments and the results of standardized mental and educational tests are used for screening and examining children of high ability, with a view toward enrichment of their school programs. "Children are also screened for exceptional talent in the areas of art, music, mechanical comprehension, creative writing, creative dance, creative drama, and social leadership."²⁶

²⁵ Paul Witty and Samuel W. Bloom, "Conserving Ability in the Sciences," *Exceptional Children*, 22: 10-16, 46, October 1955.

²⁶ Clifford W. Williams in *A Survey of the Education of Gifted Children*, by Robert J. Havighurst, Eugene Stivers, and Robert F. DeHaan, *op. cit.*, p. 88.

Several promising techniques have been developed to identify such children. The writer has discussed some potentialities in the use of films to promote creative expression, as well as the value of this approach as a method of identifying gifted pupils.²⁷ It is hoped that the future will bring more general identification and encouragement of children whose promise of creativity is great in many worth-while fields.

Some Attempts to Evaluate Programs for the Gifted

It will be of interest to speculate on the relative values of various approaches now being used in the education of gifted pupils. Certainly, in terms of the studies which we have presented in this paper, one is justified in recommending a somewhat greater use of acceleration in attempts to motivate children gifted in abstract intelligence. However, the approach must be employed cautiously with due consideration for factors such as the physical welfare and social development of each child.

The results of long use and frequent evaluation of special classes for the gifted stand as an endorsement of this approach in cities such as Cleveland. Walter Barbe's Ph.D. dissertation²⁸ shows that, in general, former graduates of the Major Work Classes make an unusual record as youths and young adults. They are, as a group, equal or superior to other groups of the gifted in the many traits studied. Their adjustment is unquestionably superior.

Evaluation of more recently established special classes in St. Louis reveals similarly successful outcomes. For example, an article in *Time* magazine (September 17, 1956) describes the outcome of the St. Louis program for pupils of IQ 130 and higher as follows:

Although St. Louis started testing for gifted students three years ago, only one batch of 250 gifted sixth-graders (out of the 7,000 or so youngsters who reach sixth grade each year) has been exposed to the advanced program so far. How has it affected them? In natural sciences, science reading and vocabulary, the gifted sixth-graders moved from average ninth-grade work to work comparable to that done by the upper

²⁷ Paul Witty, "The Use of Films in Stimulating Creative Expression and in Identifying Talented Pupils," *Elementary English*, October 1956. See also Domenic Corgiat, "Opportunity Knocks for Talented Child Artists," *Action*, Metropolitan Detroit Bureau of Cooperative School Studies, 8: 4-5, No. 4, May 1955.

²⁸ Walter Barbe, "A Follow-up Study of Graduates of Special Classes for Gifted Children," Northwestern University Ph.D. dissertation, 1953. See also *Cleveland's Plan for Gifted Children*, Cleveland Board of Education, 1956.

fourth of ninth-grade classes. Just as gratifying to St. Louis School Superintendent Philip J. Hickey was the fact that the gifted students vastly accelerated their social development (thus seeming to refute the theory that isolation of the intellectually gifted tends to stunt their social growth).

Of significance, too, is the work of the regular classroom teacher in caring for the gifted pupil. Efforts of teachers in the regular classroom are of extreme importance since at least half of the most gifted pupils in the United States live in relatively small cities, towns, and rural districts in which special classes are not available. And many other gifted pupils are to be found in cities in which special provisions have not yet been made for the gifted child. In some elementary schools, combinations of approaches are being employed with success.

It has become clear that no single plan can be recommended generally to care for the gifted, since different types of programs are being used successfully in various communities.

Concluding Statement

Full utilization of the best ability of the nation is essential for continued leadership and progress. The United States has demonstrated how man's ingenuity can result in developing vast sources of power as well as how this power may be used to make life more comfortable, secure, and happy.

In scientific exploration, our country has been the undisputed leader in many fields. If we were to be merely selfish about this matter, we would be concerned about the development of the gifted in order that our own welfare might be further enhanced. But we need also talented leaders in education, industry, and the arts.

We need the abilities of our brightest persons for more than material progress. We are in a struggle to determine by which goals and ideals the people of the world will live. We believe that democracy and freedom offer the best answers for man today. In our effort to help people learn to live in amity and peace, we need spiritual guidance and courageous leadership—offered by talented men and women equipped through education to find solutions to problems old and new. We need brilliance in diplomacy and in human relationships. We need the resourcefulness and the imagination of the gifted to create a better world.

69. What Is Enrichment? *

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Enrichment is professed to be the most commonly used procedure for meeting the needs of gifted children, yet an aura of vagueness and confusion seems to surround the term. Just what is enrichment? A discussion of this point can raise other questions: What is the value of enrichment? Is enrichment in itself adequate to meet the needs of the gifted? What are some of the limitations of a program of enrichment? These are some of the issues considered by Walter B. Barbe in the following article.

The year 1920 marks the beginning of emphasis upon enrichment of the curriculum for gifted children. Although experiments had been going on for five years, Los Angeles adopted the principle of enrichment as basic to the program for the gifted in 1921. At this same time, Cleveland began special classes for gifted children with enrichment as the major part of the program.

Defining enrichment presents many problems. In 1940, Margaret Mills sent a questionnaire to 39 school systems which were cited in educational literature for work with the gifted. Most of the respondents stated that they used some form of enrichment, but, "enrichment programs were incompletely described." Witty¹ cites examples of the "vague and incomplete reports" which were made when the respondents were asked to describe their enrichment procedures.

The Educational Policies Commission says that, in its broader sense, enrichment is a policy rather than a plan, and that no program for the gifted is justified unless it includes enrichment. The term enrichment is sometimes used to describe "the deliberate differentiation of curriculum

* Reprinted and edited from *School and Society*, 86: 222-223, May 1958, with the permission of *School and Society* and Walter B. Barbe.

¹ P. Witty, *Educational Administration and Supervision*, 37: 68, February 1951.

content and activities for the superior pupils in a heterogeneous class.”² This definition excludes the possibility of enrichment within homogeneous classes and therefore implies that enrichment is something different, something from which only gifted children will benefit. Wilson gives perhaps the best definition when he defines enrichment as “a regimen of informal and interest-motivated activities. . . .”³

In a study of the educational provisions for gifted pupils, Witty⁴ notes that recently published articles on the gifted in the elementary school stress the use of acceleration and enrichment. A number of these articles describe the attempts of regular classroom teachers to enrich the curriculum by providing more diversified materials and richer experiences for gifted pupils. Rex⁵ describes the gifted child in the heterogeneous class and emphasizes that, in enrichment procedures such as newspapers, plays, and other activities, the gifted children will participate more and may even dominate the activity but that every child takes part in and benefits from the work. This is an argument against taking the gifted child out of the regular class, for, with enrichment, the gifted child can be better provided for along with the average students.

Enrichment of the curriculum for the gifted child within the regular elementary classroom appears to deal primarily with material outside the skill subjects. At the secondary level, science appears to be the most frequent area in which enrichment procedures are reported. Zim⁶ says that five per cent of boys and two per cent of girls in a high-school freshman class are science-interested pupils. He urges educators to take advantage of this interest and to enrich the science activities for gifted children within the regular science classroom through reading reports, classroom or laboratory demonstrations, extra experiments, preparation of charts and diagrams, pupil projects, and experiments and research. Enrichment within the classroom frequently takes the form of special reading assignments, book reports, work in the library, or work on school publications.

On the other hand, some argue that enrichment is not adequate.

² Educational Policies Commission, “Education of the Gifted” (NEA, 1950), p. 67.

³ F. T. Wilson, *Pedagogical Seminary*, 82: 59, March 1953.

⁴ P. Witty, *op. cit.*, p. 75.

⁵ B. Rex, *Exceptional Children*, 19: 117-120, December 1952.

⁶ H. Zim, *Bulletin of the National Association of Secondary School Principals*, 37: 158-159, January 1953.

The fact that this term is so difficult to define and the lack of any agreement on what the term should really include explain the reason for the objection to enrichment programs. The regular classroom teacher is usually quite busy locating materials for the average child, and the question arises whether she will have time to locate material for the gifted child. There are also few examples of enrichment programs where the methods employed are explained in such detail that another teacher could actually follow them. According to Pregler,⁷ "on the negative side of the enrichment plan is the lack of time and opportunity to develop specific methods and materials which are suited to the teaching of the gifted child."

Another criticism of the "enrichment" plan in the regular classroom is that it may make the gifted child something of an oddity or a teacher's pet. When we attempt to challenge the gifted child with special materials, other children in the class may feel that they are not being given equally interesting material or are not being allowed the freedom that is part of the enrichment plan for the gifted child. This criticism is stated by Pregler: "Also, unless skillfully handled, special treatment for one or two children in the classroom can, in itself, create social cleavages. The large group of children may resent the amount of individual attention given by the teacher, the special assignments, and the books which are different from theirs."⁸ Many of the same arguments which are now being directed against enrichment are the same arguments used against special classes.

Enrichment appears to be a modern term applied to teaching which recognizes individual differences. Not only the gifted, but all others as well, can profit from enrichment. Since the curriculum is not adapted to the gifted group, enrichment within the regular classroom is of primary importance to them.

Enrichment is not necessarily a practice of only the regular classroom. It should be a part of all provisions for the gifted child, whether he is in the regular classroom or in a special class. There can be little justification for special classes if enrichment is not a primary part of them.

⁷ H. Pregler, *National Elementary Principal*, 32: 243, September 1952.

⁸ *Ibid.*

70. Acceleration for the Gifted *

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Acceleration as an approach to meeting the needs of the gifted has often been misunderstood. A discussion of this technique should answer the following questions: What types of acceleration are or have been in common usage? What are some of the advantages and disadvantages of acceleration? Does acceleration work for all gifted children? These and other pertinent points are considered by Willard Abraham.

When most of us were in elementary school "skipping" was used as both a promise and a threat. "If you continue to do well, you'll move up to the next grade in the middle of the year" or "if you don't keep up, you'll move back again." Based on a negative kind of reward and punishment, and conjuring up ideas of a tiny child among those bigger and brawnier, the procedure fell into disrepute. There was nothing particularly wrong about the whole idea if it were used carefully, except that we had peculiar, and usually unwarranted thoughts about what it meant.

"Skipping" may mean moving on without accomplishing the skills and goals of a given level; acceleration has a healthier connotation, for here the onward movement leaves no gaps behind. The basic ingredients of the course of study—whether they are fractions, percentage, square root, geography around the earth, or science experiments—are all covered, but faster, because this is a bright youngster who doesn't need as much time or drill as the others.

Feelings run high about this method of helping the gifted, with

* Reprinted from *Common Sense about Gifted Children* (Harper, 1958), pp. 77-82, with the permission of Harper and Brothers and Willard Abraham.

plenty of support and opposition. The points of view go something like this:

FOR:

1. It is the easiest and most economical way of providing for individual differences based on mentality. The school's basic curriculum doesn't have to be changed, and it does not disrupt classes or classrooms, so there is no cost to the school system.

2. Acceleration helps provide the motivation which will keep a gifted child on his toes instead of encouraging slovenly and lazy habits by insisting that he slow down to the average. By leading him into studies that challenge, we will relieve his boredom and his frustrations, both of which inevitably result to a great degree from the large classes of today. We may be able to reduce social and emotional maladjustments too.

3. Our gifted children are usually capable of going into professional careers which demand so many years of education that they may be 30 years old or more before they can begin their actual work. Why not shorten that time at the most easily consolidated part? We need their skills as fast as we can get them, as our studies of automation and manpower shortages indicate; and if we don't let these youngsters race along closer to their capacities we may never get them at all. It is from the ranks of the bored bright ones that thousands of our school drop-outs come each year.

4. Promotion should not be based on sheer time spent on a subject. What is so magic about that? No correlation has been found between the time devoted to a subject and the knowledge gained; it all depends on *who* is devoting the time. Nothing is by-passed or skipped in this plan; much of the work is merely accomplished more quickly, letting the child progress at the speed for which he was made—so why hold him back? And anyway, isn't it much *more* dangerous to do nothing at all than it is to accelerate? Our error is so often in the direction of just plain lethargy, fear of change and even activity.

AGAINST:

1. It is very important to keep the child with those of his size and social and emotional level. Moving him up to his mental level may not take these other factors into consideration, and may therefore increase maladjustments.

2. As long as teachers follow a course of study and have crowded classes, the child who is accelerated is bound to skip some vital segments of his schooling, and will be forced to follow the curriculum of average older children.

3. Mental age by itself is a questionable factor to use for grade placement. Just because two youngsters have the same mental age does not mean they will learn, respond, or be interested in the same way; their chronological age difference may get in the way.

4. No one is accelerated to the same extent in all subjects. Inequalities will result from grade jumping which includes a full grade and therefore all subjects of the curriculum.

One of the difficulties in making any sense out of these differences of opinion is the fact that they *are* opinions and not based on creditable research. This problem is rather standard in the area of school methods for gifted children—not enough proof to support either side of the picture.

Many questions have to be answered before a particular school decides to adopt this method which was one of the earliest used: How are we to choose which children are to be accelerated? When is the best time to let a youngster move ahead—what grade, age, and time of the year? How can parents be brought into the plan? How can the activities in the “leaving” and “arriving” rooms be coordinated so the child isn’t left at loose ends? What can we do to be sure that in the new room the youngster gets what he needs, and not what the average older child is exposed to there? Are we capable of doing it in our school on the kind of individual basis it demands, taking into consideration many phases of maturity, in addition to just the mental, so that no social misfits result?

What is right for one child may not work at all for another. Donald may be bright, large, well-adjusted socially, well-coordinated physically; he might easily be ready to move on a year or two, and occupy a secure niche in the higher classroom. Ronald may have only a high mentality pushing him on, and both physically and socially he might be very much out of place among the older children. These and many other factors are what parents and teachers must consider when acceleration is discussed for a particular child. One thing is certainly true: Ability to do the work of the next grade is never enough by itself to move a child up to that level. The I.Q. gives only part of the story.

Few people advocate acceleration alone, without enrichment or other ways of working with the gifted. As a sole solution it is a thin answer to a very complicated problem. And those who suggest it insist on limited use, perhaps a year or two at most for even very bright children.

In Dr. Terman's long-range study of gifted children he concluded that acceleration worked well for that particular group; those who were moved ahead did better academically in high school, with a higher proportion graduating from college, more graduated with honors, and more going on to graduate work. He found no significant differences in social adjustments, and in adulthood they were more often occupationally successful than were nonaccelerated gifted students.

With the most creative work done in nearly all areas of science, music, art, and other fields between ages 25 and 35, he pointed out the need for not delaying this productivity too long because of strung-out academic requirements. Let them enter college at 16 or 17, he insisted.

Acceleration takes many forms other than grade-skipping, accompanied or not by a complete fill-in of all materials and skills included in the grade passed over. To name a few:

1. Early admission to first grade.
2. College work taken during the high school years.
3. Early admission to college.
4. Fewer school vacations, permitting speedier completion of school work.

The last-named is an obvious administrative scheme, and 2 and 3 will be considered later. The first has some intriguing possibilities.

If we take a dozen 6-year-olds they will vary greatly in size, weight, interests, and abilities. However, currently only their birth dates are considered in connection with school entry, and few people seem to care much about the many other ways in which they differ. Instead of having an arbitrary cut-off date for entry to kindergarten or first grade, wouldn't it make better sense, according to those who support this idea, to give some consideration to these other differences? Wouldn't teachers prefer and children learn more from classes that were more similar in their abilities (provided we take their physical and social adjustment into account)?

The plan could work like this:

1. Continue to have a cut-off date of October 1, December 1,

February 1, or whatever it may be at present. Admit children into first grade if they were 6 years old before that date.

2. Test, observe, and evaluate children whose birth dates come within a certain period *after* the cut-off: one month, two months, or whatever period seems appropriate.

3. Siphon off the top layer of that second group and admit them also.

This method removes part of the mechanical inflexibility of a single deciding date for admission, and, in addition, provides for the youngsters who are more ready than others to go on. It calls for an early testing program, and many educators and parents would profit from having that information for guidance purposes before too many years have passed, if it is reliably administered and interpreted. Of course, testing is only part of the evaluation process which would have to include all of the more acceptable child study methods, especially the following:

1. Child interview
2. Parent interview
3. Reading readiness test
4. Mental test
5. Observation in various situations
6. Teacher and administrator comments if child has previously been in nursery school and/or kindergarten.

Acceleration of this kind is done individually, with extreme care and the full understanding of parents. It doesn't run the risk of shortening the elementary school program, merely getting it started earlier for those who are qualified to profit. And it calls for a follow-up to see how well it continues to work for the youngsters selected.

But have you ever thought which is the *best* of all situations for acceleration, the kind of setup in which it works most satisfactorily? The framework now exists in few places in this country, for the ideal is the old one-room school! There, without grade barriers and artificial signposts, the teacher was completely free to move a child up in one or every subject as his ability to absorb the contents became apparent to her. The child could be "all" under those circumstances, a situation we have unfortunately had to lose in a mass education system that is trying to do the best it can in the midst of a deluge.

71. Research on the Gifted *

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Educational research often helps to provide answers to perplexing problems confronting teachers and administrators. The selections in this chapter have discussed the role of the gifted in American culture and current practices in identifying, educating, and counseling children who are gifted. The following stimulating review of recent and current educational research provides an excellent synthesis of points already discussed in this chapter as well as calling attention to those areas in which research is urgently needed.

Recent concern with the education of superior students has resulted in a sizable crop of studies. To report them all, even briefly, would be a task beyond the scope of this presentation. Therefore, instead of a systematic, comprehensive review of current literature in the field, the report will compare some recent findings with those from past research; examine the extent to which current projects are seeking solutions to perennial problems which have remained unsolved and report efforts to study uncharted ground.

In this report the words gifted, superior, able, bright, and academically talented will be used interchangeably, as they are in the literature, and will serve here more for stylistic variety than for semantic intent.

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Social and Personal Characteristics

What is the superior youngster like? What are his personality traits, interests, and aptitudes? What are his social backgrounds, his school behaviors? Such questions have concerned students in this area since Terman began his monumental studies in the 1920's. However, one question continuously arises: Are the personal and social characteristics attributed to gifted youngsters of the past descriptive of the gifted youngsters of today?

Current research answers this question partly in the affirmative (1, 3, 17, 34, 52).¹ Compared to average children, both at the elementary and at the secondary school level, gifted youngsters secure higher grades (17), have more positive attitudes toward school (1), and excel in their ability to read (1, 52). They participate in more extracurricular activities (17, 34) and have more hobbies and out-of-school interest (1). Like their predecessors of the twenties and thirties, they are more concerned than average children with abstract ideas, such as religion and morality, and are especially troubled by problems of world peace (52).

Today, as in the past, research points out repeatedly their adequate social and personal adjustment. They are successful in sports (1), better satisfied with their peer relations than are average youngsters (52), and more confident, and aware of their above-average ability (17). High IQ high school boys were found also to rate higher on behavioral controls; were less apt to show lability of mood, social delinquency, carelessness and impatience, especially in matters requiring long term personal investment of an intellectual nature. (56)

Some current analyses of socio-economic status and ethnic group membership of gifted students support earlier findings that there is a disproportionate distribution of those identified as gifted among the various subcultural groups (3, 41). A follow-up of graduates of the Cleveland Public Schools (3) found more students from German, English or Jewish background, and fewer from Polish, Italian or Negro background than would be expected on the basis of census figures. More than half came from middle class homes; 40% from professional or managerial homes and 30% from homes of semi-

¹Numbers in parentheses refer to items in the Bibliography at the end of the article.

professional or clerical status. Less than one third of the group came from laboring class homes. Similarly, the National Merit Scholarship Corporation (41) report indicates that whereas scholars come from hovels and mansions alike, more than half of them come from homes in the upper business or professional group.

However, Drews' (17) study in Lansing, Michigan, suggests a significant departure from previous findings. Of the 150 gifted high school students selected through initial city-wide group intelligence testing and then through individual Stanford-Binet tests, 75% came from homes of skilled, unskilled and low white-collar workers. Although the small number of professional families (about 10% of the Lansing population) still accounted for more than their share of gifted children, the lower socio-economic groups were more equitably represented.

It is thus possible to hypothesize that intellectual ability, as measured by intelligence tests, tends to be found somewhat more proportionately throughout the population today than in the past, but that the kind of high level achievement which results in winning a Merit Scholarship award is more often associated with higher socio-economic status. Should Drews' findings be indicative of a trend toward broader socio-economic representation in the ranks of the gifted, time-honored findings relative to their physical, social and emotional superiority may no longer stand up. For some time questions have been raised regarding the effects of socio-economic status on the findings that gifted children are superior in non-intellective as well as intellective areas of development and behavior. Bonsall (6) found that temperamental differences between gifted and average students were more a function of socio-economic level than of IQ. When socio-economic background was held constant, the few significant differences that remained were either related to intelligence, such as greater thoughtfulness or objectivity, or to behavioral control. Differences in ascendance, emotional stability, sociability, friendliness or cooperation were related to social class rather than to intelligence. A similar approach to the analysis of physical characteristics of gifted children as well as to the values they hold, may find differences previously attributed to intelligence to be more significantly related to home background.

A further challenging area of difference between past and present

findings relates to similarities between average and gifted boys and girls. For example, several studies have found that although gifted youngsters read better, and more, especially at the elementary and junior high school level, their reading tastes are "limited, trite or poor" (1). Unlike Terman's subjects they do not voluntarily go beyond the books read by their average age mates.

Nor does their intellectual behavior necessarily reflect the expected outstandingness in the ability to conceptualize, see subtle relationships, or probe ideas in depth. In a study of gifted junior high school students, Kirshner (33) found that these youngsters were verbally very articulate, in fact glib, when left to their own devices, but their thinking was superficial at best. They liked to read, but would not voluntarily tackle more difficult books than those read by average students. His experimentation led him to conclude that the expected abilities are there, in latent form, and that they emerge when the school sets learning tasks which require gifted students to perform in accordance with their intellectual capacities.

Is it possible that some kinds of intellectual talents will atrophy with disuse? Or are these children following the path of least resistance—making just enough intellectual effort to get by? Or are some of them afraid to appear too brainy? In this latter connection Strang (52) found that the voluntary reading of gifted students decreased from junior to senior high school and suggests that this decrease may be due in part to fear of being considered bookworms by their friends, as well as increased homework demands.

Further support for the possible fear of being considered a bookworm or a grind comes from interviews with gifted high school students (22). When asked whether they thought outstanding grades jeopardized a student's social standing, the response was generally in the affirmative. One boy said,

"Well, some kids study all the time, and maybe they don't know, but the class usually doesn't like them . . . If I really wanted to I could get one of the highest marks in the class, but if I did that I wouldn't have very many friends . . ."

One additional insight into the characteristics of the gifted emerges from Drews' (17) study, not as a departure from previous findings, but rather as a provocative notion which merits further exploration.

She found that over half of her gifted students were first-born (or only) children instead of the about one-third which would be expected by chance. Terman (57) and Barbe (3) reported similar findings, as did Roe (47) in her study of eminent American scientists. Do these findings suggest that there is some quality in the relationships between parents and their first-born which is particularly conducive to the development of intellectual ability? Or are we dealing with a sociobiological phenomenon, related, perhaps, to the younger age of parents when the first child is born? It would be well to understand this phenomenon more fully in order to know whether the family and the school can somehow compensate for lacks related to not being first-born children.

Identification

Information on the characteristics of the intellectually able child is fairly adequate, but our ability to identify him still lacks precision. No available measuring instrument is a sure-fire predictor of academic success. In fact, the use of multiple criteria for identifying gifted children is becoming more widespread. Hill *et al* (27) report the use of teacher judgment, cumulative grade averages and IQ scores for identifying gifted students. Of the 24 students included in the final selection, 90% would have been identified by teacher judgment alone. These findings suggest a higher degree of relationship between teacher judgments and objective test scores than had been reported previously. Further research on the use of multiple criteria is needed in order to discover which factors prove to be the best predictors of success and in what combinations they are most effective.

Although we can measure some kinds of intellectual ability fairly adequately by means of intelligence, aptitude, and achievement tests, we have, until recently, been unable to tap dimensions of giftedness not amenable to study through conventional measures. Nor do we know enough about the non-intellective factors that may be crucial to predicting level achievement.

CREATIVITY. Exploration of creativity as a dimension of giftedness in cognitive areas was reported by Getzels and Jackson (21). Through the use of specially designed measures of creativity and conventional intelligence tests it was possible, out of five hundred stu-

dents, grade six through twelve, to identify the top twenty per cent of the total sample on IQ measures, but not in the top twenty per cent on measures of creativity; and another group that ranked in the top quintile on creativity but not on IQ. There was a mean difference of 23 IQ points between the two groups. Although both groups were *equally* superior to the general population on standardized verbal and mathematical achievement tests, teachers showed a clear preference for having the high IQ child as a class member. The groups differed in preferred characteristics: the high IQ group favored high marks, pep, character and goal directedness and desired to possess *now* those qualities which will lead to success in adult life. The creative group favored wide range of interests, emotional stability and, above all, sense of humor, and were less apt to select present aspirations in terms of remote success goals. While self-ideals of the high IQ pupils were consonant with what they perceived to be the expectation of teachers, the creative children showed a slightly negative correlation between their own ideal image and what they perceived to be the teacher's image of an ideal student. The authors suggest that unless conventional identification procedures are supplemented by measures of creativity, a group of truly gifted young people able to produce novelty in the learning process as well as remembrance of course content will have been missed.

NON-INTELLECTIVE FACTORS. A series of studies of non-intellective factors, sponsored by the Social Science Research Council (50) investigated such components of intellectual achievement as socioeconomic status, ethnic or religious group membership, family patterns and child-rearing practices as well as self-concept. In studies of family interaction patterns among Jewish and Italian residents in an eastern city, Strodtbeck (53) found a positive relationship between egalitarian relations in the home and the son's ability to move to new loyalties in larger systems outside without rupturing family controls. Family "democracy" (a relatively powerful mother) was found to be positively related to achievement values. And, the extent to which the family allowed the son to act in accordance with a belief in man's ability to control his destiny, rather than the parents' stated attitudes effected the development of ideas of success and achievement in the son. A son is not likely to accept his father's expressed belief in man's ability to control his destiny, if, in practice, he is

"pushed around" by the father. The author suggests that a value system which endorses the concept of the "Perfectability of Man" and consequently the improvement of society is more conducive to the development of strong achievement motivation than one which is more concerned with establishing dominance in face to face relationships.

Similar motivational patterns were reported by Kahl (30) who studied the college-going aspirations of lower middle class boys of high intellectual ability. He found that where the father was satisfied with "getting by" the son was less apt to consider going to college than in families where there was a striving to "get ahead." Students from homes that were satisfied with their present low status were generally bored with school, aspired to jobs like their fathers' and most preferred to "have fun" with their friends. Those whose families believed in "getting ahead" took school much more seriously and aspired to better jobs than their fathers'. It would appear that within a given socio-economic stratum a family's attitudes toward their occupational status has a greater influence on the achievement expectations of the sons than does actual class membership.

DIFFERENTIATION OF ABILITIES. Despite the great variations in fulfilling intellectual promise resulting from various non-intellective factors, a test of general intelligence, preferably an individual one, is considered to be the best single predictor of success, especially at the elementary school level. At this stage, it is believed, no marked differentiation of abilities has yet developed. At the high school level, tests of educational development appear to be most effective in discovering both general and specific strengths and weaknesses. For the prediction of college success, the psychological examination is giving way to measures more closely related to achievement, which have been found to predict more accurately.

In view of the generally accepted belief that there is little differentiation of intellectual abilities in young children (2), the recently initiated study at Hunter College Elementary School (16) should prove illuminating. It hypothesizes that as early as first grade, children can be identified who are outstanding in one or two but not necessarily in all such special abilities as word meaning, numerical facility, spatial orientation, logical reasoning, and social leadership. It further hypothesizes that school programs peculiarly suited to edu-

cating children with these diverse strengths within a single class can be developed.

Certainly more systematic research on identification is needed. We must recognize the multifaceted nature of giftedness or talent and explore the best means of assessing the various facets, as well as their interaction. It is easy to identify the "able and ambitious" student, where ability is defined in terms of intelligence tests, in fact he almost identifies himself. But it is not easy to locate the highly creative student or the potentially able unambitious one. Nor do we know the proportions of ability, creativity and ambition necessary to produce high-level achievement, or understand the workings of the various components of ambition as it motivates success in academic or creative areas.

Administrative Provisions

Administrative procedures for taking care of exceptionally able students, especially ability grouping and acceleration, have long been a source of concern to teachers and administrators. Both these practices arouse heated arguments, and research findings seem powerless against the vested emotionality of educators and laymen alike.

ABILITY GROUPING. What does recent research tell us about grouping? It generally confirms past research: although the academic achievement of able students in narrow range ability groups tends to be somewhat greater than in broad range classes, these findings are neither conclusive nor consistent (39). The lack of definitive differences may, in part, be due to the use of standardized achievement tests which, generally, measure accelerated coverage, but are not able to measure the development of greater depth of understanding, critical thinking, self-directed learning activities, etc. Since most gifted children, especially at the elementary level score near the ceiling of generally used tests, any differential growth, due to grouping, may be masked. But the lack of consistent differences may also be due to the fact that little is done in special classes for the gifted that is different from what is done for them in broad range groups. Thus, grouping, though a possible facilitator of better learning experiences for bright children, does not *per se* result in greater achievement in the basic skills or general content (55).

There is, however, some evidence, that contrary to the stereotype, grouping results in the development of more realistic self-concepts for gifted students. Recent studies by the Talented Youth Project (55) found that when bright students were moved from broad to narrow range groups, their self-estimates tended to go down, and the gap between their perception of their present status and of their wished-for status increased, thus leaving more psychological space for improvement. Instead of fostering snobbery and conceit, membership in the special class tended to take the students "down a peg."

Desirous of retaining the possible achievement benefits of narrow range grouping while fostering broad social relationships, several schools have instituted partial grouping, where gifted children are in special classes for part of the day, in regular classes for the rest of the day. An evaluation of one such program in a Dade County, Florida, elementary school (14) found that the youngsters so grouped showed better academic achievement than a comparable group in regular classes. An assessment of peer ratings in the ungrouped situation indicated that the gifted children placed in neither the most-liked nor the least-liked group. The gifted youngsters themselves stated that they felt more at home in the special class than in the regular class.

Further evidence comes from a study by Mann (37), who analyzed the acceptance and rejection patterns of elementary school children in the Colfax School (Pittsburgh, Pennsylvania), where partial grouping had long been standard procedure. He found that in spite of the fact that gifted children had visible social and academic contacts with "typical" children, gifted children chose and rejected other gifted children much more frequently than they chose or rejected typical children. Typical children also seemed to prefer and reject their own. In all instances both the acceptance and the rejection seemed to be stronger within an ability group than across it. Gifted children generally preferred to have other gifted children criticize their work and react to their products. Mann also found the same patterns in the out-of-school friendships of the gifted. In general the results of the study indicated that to believe that "because we group children together we have trained them to accept each other for what they are" (37) is by no means supported.

However, studies on grouping to date have dealt only with the effect of ability grouping on the superior student. Little attention has been given to what happens to the other children in the school when special classes for the gifted are formed. A broader statement of the issue might be: What are the effects of ability grouping on the intellectual, social, and personal development of all youngsters? In tackling this problem the Horace Mann-Lincoln Institute (55), in cooperation with the New York City Public Schools, involved forty elementary schools in organizing some eighty fifth-grade classes on the basis of specific grouping patterns which were maintained intact for two years. Some classes included only youngsters of IQ 130 and above (based on a 3rd grade non-reading group intelligence test), others included those of highest and next highest ability, some included the total ability spectrum. Some classes had no gifted youngsters in them, others were limited to average-ability students only, some only to the slow. Thus, it was possible to see whether average youngsters, for example, fared differently when they were in classes with or without bright youngsters; or whether they fared differently when there were slower youngsters in their classes than when there were none. Similarly, the bright or near-gifted were studied in various positions along the ability range. The assessment of these students included before and after measures in all achievement areas; in self-attitudes, attitudes toward school interests, acceptance and rejection of brighter and of less able students, creative writing ability, friendship and leadership ratings, and teacher ratings. It was hypothesized that children at all ability levels would, in general, fare better when the class range is narrow than when it is broad. Analyses of the achievement data showed no significant differences due to grouping at any of the ability levels. However, the analyses have revealed some very interesting phenomena. A group that was constituted as narrow range on the basis of 3rd grade IQ scores, by the end of 6th grade, when a more verbal intelligence test was administered, changed its character. In addition, groups that were considered narrow on the basis of IQ, in many instances showed a six-year reading range at the 5th grade level. Thus, narrowing the range on one variable does not necessarily narrow the range on other variables, even where there is a fairly high correlation between them. At present the data are being re-analyzed on the basis of reading rather than IQ scores. This procedure will

test the effects of broad vs. narrow reading ranges within a class on the performance of students of various levels of reading ability. Since the major emphasis in the elementary school curriculum is on reading, breadth of reading range may be a more valid determinant of general achievement than is breadth of IQ range.

But while ability grouping on the basis of IQ scores does not result in significant achievement differences for average and below average students, it does seem to be related to differences in their level of aspiration. When gifted children are taken out of broad range groups, the wished-for status of the remaining students goes up, a phenomenon not observed where the gifted remain in the regular classroom. It would appear that removing the most able students acts as a lifting of the aspirational ceiling for the rest, freeing them to aspire to a level of excellence which seemed unattainable before. Thus, taking the bright children out of regular classes seems to have a potentially up-lifting rather than a depressing effect on the remaining students.

In summary we can say with some assurance that grouping able youngsters together may be a useful administrative device, since it can enable teachers to work with a narrower range of abilities, to devote more time to the gifted than is possible when there are slow children who need help, and to enrich the curricular offerings. Furthermore, desirable changes in self-attitudes may occur both for the gifted and the non-gifted; and there is no evidence to support the notion that grouping has adverse effects on the social or personal attitudes or behavior of children. Nor, on the other hand, does broad range grouping foster greater mutual acceptance among children of various ability levels.

However, ability grouping is by no means a *sufficient* condition for insuring greater academic achievement at any ability level.² At best, it provides a framework within which enhanced learning can more effectively be planned and executed. The crux of the problem of providing more meaningful learning experiences lies not in the grouping patterns used, but in what goes on in the classroom. Several studies are now in progress to assess the effects of special programs for gifted youngsters in varying range groups (61).

² Support for this contention comes from studies done with Navy personnel as well as from civilian schools (see reference 19).

ACCELERATION. Acceleration is second only to ability grouping in arousing emotional response. It is hard to find a single research study which shows acceleration to be harmful to any group of students (48). On the contrary, from the early studies of the 1930's until the recent report by the Fund for the Advancement of Education on its Early Admissions Program (20), acceleration has proved to be a very satisfactory method of challenging able students.

Caution needs to be exercised in selecting candidates for accelerated programs. It would be foolhardy to disregard a child's physical and emotional development in moving him to a grade beyond his years. Where possible it is probably better to move whole groups of youngsters through at an accelerated pace than it is to move a single child (29). But in the small school, where there are few exceptionally able children and curricular adjustments within broad range classes are difficult to achieve (which, of course, is true not only in small schools), acceleration can raise the level of challenge and stimulation for the superior child.

To the extent that getting youngsters out of school earlier is *per se* a worthwhile end, acceleration is certainly both a desirable and a practical method. Lehman (35) has shown that for some fields of endeavor, particularly the physical sciences and mathematics, greatest productivity is achieved during the twenties. Such findings tend to stress the importance of freeing the potential producer from the apprenticeship of schooling at a sufficiently early age to make possible maximum freedom for original work and experimentation during the third decade of life.

But available research does not support the contention that acceleration is the best method of providing greater challenge for able students. Studies dealing with acceleration of one kind or another compare their accelerants to youngsters who are carefully matched on ability, but the comparison is inevitably with a group whose curriculum is rarely different from standard fare in the school. There is no proof that an accelerated group would do better than an equally able group who had had an additional year or two of stimulating advanced work. It is possible that the value of acceleration would vary with the economic state of the country at any given time and also with the financial status of individual students. Where finances are a problem, earlier entry into college may be necessary to ensure

college graduation and enable students to do postgraduate work. Perhaps a combination of acceleration and more stimulating curricula is the best solution.

The optimum time for acceleration is not known. Gifted accelerants have been generally successful whether they were early admittees to kindergarten, grade-skippers in the elementary school, members of special progress classes at the junior high school level or early admittees to college. But is one time better than another for acceleration? Are there developmental factors that might suggest that at certain ages there may be more dangers or, at least, more discomfort for the child? Hobson (28) suggests that early admission to kindergarten is the ideal method. In a follow-up study of early admittees to kindergarten on the basis of physical and psychological tests, he found that this group was scholastically superior through the elementary and high school grades, engaged in more extra-curricular activities, won more honors, and awards than did older students and more of them sought and gained admission to accredited four year colleges of superior standing. However, there are as many proponents to early admission to kindergarten as there are of early admission to college.

OTHER ADMINISTRATIVE PROCEDURES. School are experimenting with administrative arrangements other than grouping and acceleration to provide for superior students. Three kinds of programs are worth noting.

Seminars for Rural Youth. A seminar for able youth is now in its second year in Lewis County, New York (55). In this very rural county, where schools are small and spread over a large area, twenty-five eleventh and twelfth graders from six high schools were brought together for one afternoon a week. The central theme of the seminar was "Communication," and students were exposed to classical and modern literature, music, art, and drama. A special trip to New York City was also included with visits to the opera, UN, concerts, art museums, etc. Evaluation thus far shows that the seminar members have grown in self-expression and in critical thinking. As compared to students in past years, an increased number went on to higher education.

Whether such seminars can be successfully developed in rural areas generally depends largely upon availability of suitable personnel,

either within the local school system or through the cooperation of a neighboring college, industrial plant, or governmental station. The personnel would largely determine the nature of the content.

Evening Science Seminar. Another plan which is spreading rapidly involves the organization of evening science seminars (25) in which outstanding scientists from the community or from near-by places work with selected students in groups and individually. Such an arrangement should provide potential young scientists with opportunities for original research and experimentation, so often lacking within the school program.

GUIDANCE PROVISIONS. Everyone recognizes the importance of guidance for the maximum development of superior students. Little has been done to discover whether the problems faced by the superior group are sufficiently different from those of average students to warrant special attention or new approaches; or just what these special problems are.

An attempt to identify some of these problems and to experiment with group guidance for a section of superior students under a specially trained person is now under way at a Denver, Colorado, high school (55). Follow-up studies will compare the special group with equally able students spread throughout regular guidance sections, and should shed some light on whether grouping gifted youngsters for guidance and organizing the content around their special needs will have important effects on their success in high school, in college, and in adult life.

Another attempt at guiding more able students is found in the work of the Project on the Guidance and Motivation of Superior Students (43). Selected cooperating schools are developing various procedures for stimulating more able students toward greater academic success in high school and toward planning on post-high school education.

Course Content and Methods

No matter how adequately a school may handle the problems of grouping, grade placement, or even guidance, the major question in educating talented youngsters still remains unanswered: How should the actual course content and teaching method be differentiated for

these students? The glib answer is, enrich the curriculum. Does enrichment mean accelerated coverage of a standard course of study followed by advanced content in a given discipline, such as completing elementary algebra in the eighth year and thus, in the twelfth year, having time for a course in calculus? Or does it mean digging more deeply or extensively in selected areas, for example, studying original documents of some historical period? Or does it mean increased independent and creative work in some field of individual interest? Perhaps the very word enrichment is a misnomer; perhaps what is needed is not embellishment of existing course content but *different* content. Despite the plethora of "promising practices" suggested by and for teachers, these questions remain unanswered.

The only subject-matter field in which some experimentation with course content is now in progress is mathematics. In Pittsburgh (44) elementary algebra was successfully completed in the eighth grade by a group of carefully selected students. In the University of Illinois Campus School the newly developed Illinois Math Program (60) is being used experimentally with superior seventh-grade students. There are both examples of enrichment through acceleration. However, in St. Paul, Minnesota (49), the ninth-year course of study was rewritten to include many concepts of modern mathematics and is being tried with one group of able students who will be compared with another such group taking the traditional algebra course.

An experiment in a tenth-year geometry class which involved the inclusion of special mathematics units, not normally taught at any stage of the usual course sequence, is reported by Lessinger and Seagoe (36). They found that the students in this program achieved better in basic geometry content and were superior to a comparison group in general mathematical understanding, flexibility of approach, and willingness to propose and defend original solutions.

Motivation and Attitudes

It has long been recognized that a child's IQ, or even his score on aptitude tests, accounts for only part of what determines his academic achievement or his vocational selection. Teachers have long been familiar with the able unmotivated student, and many a report card has gone home bearing the notation "Should be doing better." This

problem was highlighted by Terman (57) in his comparison of the vocationally most and least successful adults among his gifted subjects. He found through checking past records that the two groups began to draw apart in achievement and in personality ratings in their early high school years.

But although the problem of underachievement was recognized and school people knew that many able students, even among those who did well in high school, failed to go on to post-high school education, it was not until the publication of the manpower studies that educators and the public alike became aware of the fact that about half of the nation's able youth would not be academically prepared to fill our depleted talent reservoir.

Although financial difficulties explain a part of our talent wastage, which the steadily increasing scholarship aid should go far to remedy, a part of the waste is due to factors other than lack of money. In fact, we find that some gifted children begin to show symptoms of academic underachievement in the junior high school, and some as early as the elementary grades. Who are these underachievers? What are their backgrounds? What are they like and why? What can the school do to help them? These questions have concerned researchers since Conklin's early studies (13). In summarizing the research literature on underachievement through 1957, Beasley (5) reports contradictory findings with reference to the role of personal and social maladjustment in underachievement and concludes that good or poor adjustment cannot be viewed as the particular phenomenon which in itself accounts for underachievement. Drews (17) found that the incidence of underachievers was very low in her group of gifted students. She found that most of the boys were planning on college careers, but that wastage was great among the girls, many of whom looked upon high school as terminal education.

Comparisons of gifted underachievers and high achievers by the research staff of the Portland Public Schools (46) and similar studies by the Horace Mann-Lincoln Institute in cooperation with the Evans-ton Township High School (55) and with the De Witt Clinton High School in New York City (22) revealed significant differences between the two groups in their self-concepts, school attitudes, and out-of-school pursuits. Some of the underachievers expressed negative views of those who make high grades, calling them grinds, and suggest-

ing that they do not participate sufficiently in non-academic activities. The underachiever more often was cynical, felt victimized by adult authority, and perceived his family situation as having poor morale, with strong parental domination. But no differences were found in parental philosophy of child rearing. These youngsters were characterized by an excessive gap between their perception of their present status and the image to which they aspired. They often perceived this gap as too great to bridge through their own efforts and exhibited a belief in magic, in some force outside of themselves which would suddenly make things right.

In studies of the Clinton underachieving gifted boys (22), among whom underachievement at the high school level is generally found to be twice as prevalent as among girls (24), inadequate father identification was frequently observed. These findings support Kimball's (32) results from intensive case studies. She found a greater tendency toward feminine identification among the underachievers and a more negative relationship with the father than was found among bright normal achievers.

The causes of underachievement remain shrouded in mystery. In fact, it is probable that the causes are as diverse as are the underachieving youngsters themselves.

Some general social factors related to underachievement have been suggested: for example, bright children from low socio-economic status homes tend to be less motivated toward academic excellence; some ethnic groups present more problems of underachievement than do others—a fact probably related to the traditional attitudes of ethnic groups toward intellectual pursuits (53). But even when these factors are held constant, great individual differences in achievement persist.

Since no single factor seems to differentiate adequately between high and underachievers, Nason (40) approached the problem through studying the discriminatory power of the summation of various factors. The "patterns of circumstances" which he measured included personality adjustment, pupils' and parents' level of academic aspiration, pupil and parental choice of a future vocation, and pupils' inspiration or choice of encouragement. He found that positive status on all of the circumstances assured membership in the top quintile on achievement, but that no single factor was a better discriminant

than any other. However, low scores on the Personality test, if accompanied by high scores on the other factors did not militate against high achievement. In general, the patterns of circumstances associated with different quintiles appeared to vary only in the *number* of circumstances *missing* from a complete pattern.

There is some indication that the junior high school is the point at which the problem of underachievement gets a good start (22). A study of high and low achievers at the Bronx High School of Science (18) discovered that the most telling differentiation between these two groups, who were matched on intelligence, entrance examination score, and other objective factors, was the grades they received in junior high.

With the limited knowledge available today, without any clear understanding of what makes one child underachieve and another child from a similar background achieve up to capacity, what can schools do to help these underachievers? Certainly educational guidance, personal counseling and remedial help are indicated (4). But are there any kinds of administrative or classroom modifications which might prove helpful? This question was raised at the De Witt Clinton High School in New York City (22). In cooperation with the Horace Mann-Lincoln Institute a group of high ability, low achieving entering tenth-year students was identified, half of whom were placed together in a home room with a specially selected teacher who was their social studies teacher as well as home room guide. For all other subjects they were distributed throughout the regular sections. A year's study of these students showed that, though they were slow in improving, they did excel the control group in almost all subject areas. However, when the following year they were placed for social studies with a rather rigid teacher who was inflexible in her demands for high standards of excellence, they made life miserable for the teacher. They were extremely supportive of one another in their negative behavior and tested the limits at every step.

The implications of this study point toward the need for continued careful selection of teacher personnel for such groups. They apparently need teachers who are able to accept their limitations and who are sufficiently flexible to allow them the leeway they need. Whether the high school years are long enough to provide the necessary support at first and gradually free the children from the need for such

support is questionable. A look at the individual members of the group was quite revealing. For some of these youngsters the special class opportunity was just what the doctor ordered. A supportive teacher, a friendly atmosphere, a reaffirmation of their own ability provided the impetus for them to move ahead. But some of them had deep-seated psychological problems which were not amenable to any kind of superficial group treatment. In their case, more intensive personal help is indicated.

A great deal of additional research is needed to discover ways in which the school can help these boys and girls. A prior step to actual administrative planning for them would involve much more careful academic, psychological, and possibly even psychiatric screening. It is probably important to differentiate between the underachieving youngster who will rise to the occasion in the secondary school situation given some help and understanding, and the youngster whose problems are too deep-seated to be amenable to any help at that late date. Extensive research is needed on identification of potential underachievers in the elementary grades and the junior high school grades, in order that they can be helped before they become too well adapted to their own poor work and study patterns and before their anxieties can channel their defenses into underachievement.

The manpower waste occurs not only among students who are identified as potentially able but who, for a variety of reasons, do not fulfill their promise. It is even more marked in underprivileged groups in which the estimated loss of potentially high ability students is probably in the hundreds of thousands each year, since they cannot be adequately identified by the testing procedures in common use (45). The work of the Southern Project, which involved identification of students who would not normally have been considered superior, followed by guidance and scholarship aid, resulted in many more southern Negro students going to non-segregated colleges, where they were generally highly successful.

Does waste or misplacement of talent result not only from cultural deprivation and underachievement, but also from the unwillingness of able high-achieving students to pursue science, mathematics, or foreign language study and thus be unprepared for professional work in these essential fields? Drews (17) found that three-fourths of her gifted boys were planning their study for careers in science

and engineering. And of 5800 Merit Scholar and Certificate winners (41), 60 per cent planned on similar courses of study and another 25 per cent on liberal arts study. The number headed for business careers was limited to 2 per cent.

Mead and Montraux (38) studied attitudes toward science and scientists through content analysis of brief essays written by 35,000 students in schools across the nation. Students were asked to describe their image of a scientist and the kind of scientist they would or would not like to be (or to marry). In general, the authors found that the image of the scientist represents a deviation from the accepted way of life, from being a normal, friendly human-being who gets along with other people. Boys and girls reacted somewhat differently to the scientist. The positive reactions of boys were such as did not appeal to girls—adventure, space, travel, etc. The positive reactions of girls emphasized humanitarianism, which did not appeal to boys. Girls generally rejected scientific careers for themselves, and rejected a scientific career choice for their future husbands.

The extent to which able students may be deterred from achieving intellectual excellence by a fear of rejection by peers was investigated by Tannenbaum (55) through an attitude test. He asked students to attribute various personal characteristics to brilliant and average students, who may or may not be overly studious and who may or many not be athletic. He also investigated the relationship between the students' responses and their intellectual and socio-economic status. He found that the brilliant highly studious non-athlete ranked the lowest of all the characters described on acceptable traits and general popularity. In fact, the four students described as athletic surpassed the four described as unathletic, regardless of the accompanying characteristics. Studiousness was viewed as a handicap, especially by the girls, and brilliance, though viewed as desirable when accompanied by limited studiousness and athletic ability, became a handicap when associated with a high degree of studiousness and a lack of athletic prowess. No significant differences in ratings were associated with the intelligence or socio-economic status of the respondents.

Current Trends

What does research tell us about current trends in the education of superior children? In the past, surveys indicate that few schools were making special provisions for this group. Where schools did report special efforts, it was usually through "enrichment in the regular classroom." To what extent has the picture changed?

Recent surveys (7, 8, 23, 26, 59, 62) and school reports indicate a growing awareness on the part of educators of the importance of making special educational provisions for the gifted child. At the secondary school level, especially in large schools, ability grouping through sectioning and honor classes is becoming more widespread (26). Not so at the elementary level. Here, classroom enrichment still holds its own. Least is being done in small non-suburban communities. The outstanding programs involve special staff and additional cost (23).

However, a self-assessment survey of 400 Central Secondary Schools in New York State (55) found schools attributing less importance to grouping and acceleration than to classroom enrichment as means of providing for talented students, but that they do not consider their present enrichment procedures as adequate.

Many school systems (62) have published guides for administrators and teachers which discuss identification procedures, administrative arrangements, and curricular suggestions. In some districts, individual buildings may be engaged in a special program, in others system-wide efforts are involved (46). Under a grant from The Fund for the Advancement of Education, the Portland Public Schools, in cooperation with Reed College, developed a comprehensive, district-wide plan. Special training for teachers through summer and in-service workshops, the addition of personnel, special classes and seminars at the secondary level, and enrichment units and special interest groups at the elementary level resulted in a unique program which stood up well under careful evaluation.

A new trend is seen in the efforts of State Departments of Education to undertake work in cooperation with public schools, sometimes also involving institutions of higher learning in cooperative effort (9, 31). Not yet apparent in surveys or in school reports, but a trend nevertheless, is the recent determination to make able students work harder,

take more years of solid subjects, spend less time in nonacademic pursuits. This determination is quite marked in the reports of the working groups at the National Education Association Invitational Conference (12), and in Conant's report on the American high school (12a). The pros and cons of this trend need thoughtful assessment.

Concerns for Schools

The studies cited give some idea of the kinds of questions that are being looked into at present. There is some danger that the immediate demands of the culture for more scientists and mathematicians will lead schools into urging able students into these fields at the expense of other intellectual endeavors. Thoughtful consideration on the part of school people is needed if we are not to sacrifice both special talents and the long-range needs of our culture on the altar of immediate economic and political demands.

The great research need today is in the field of content and method. We need to know what will stimulate a love of learning among able children; what kinds of assignments will most effectively develop independence of thinking and independence of effort; whether there are some subjects in which acceleration through the present curriculum is the most appropriate kind of teaching, and other subjects in which greater exploration in depth or expanded exploration in breadth may be the answer.

We also need to understand better the interrelationships of various aptitudes and talents in order to help students better plan their programs. Should all intellectually able students take the same kinds of courses, such as three years of mathematics, three years of science, and at least three years of foreign language, in addition to the required English and social studies? Or should the course offering be more carefully differentiated in terms of special aptitudes and interests of students? Should students with high academic aptitude be encouraged to take art or music or drama as a major subject?

All these questions are still open, as are many that relate to guidance and counseling, particularly for the underachiever. As schools pay more attention to the available research and act on it, and at the same time become actively involved in the pursuit of research in their own schools, we will go a long way toward improving our educational pro-

cedures, not only for the gifted child, or the academically talented child, but for all youngsters in our schools.

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INDEX

(Page numbers in italics refer to an article in this text by the author listed.)

- ABEL, T. M., 114
 ABRAHAM, W., 524, 551
 ADLERBLUM, E. D., 454, 455
 Albuquerque, N. M., 472
 ALLEN, F., 35
 Allentown, Pa., 514
 ALMACK, J. C., 442
 American Association on Mental Deficiency, 43, 94
 American culture, 495-500
 American Medical Association, 221
 AMES, L. B., 435, 436
 amputee child, 183-187
 ANDERSON, C., 150
 ANDERSON, V. V., 73
 aphasic children, 330-337
 ARLITT, A. H., 164
 ARTHUR, G., 58
 articulatory defects, 322-326
 asphyxia, 51
 Austin, Texas, 181
 AUSUBEL, D. P., 551
 autism, infantile, 52, 62-65
- BAGLEY, W. C., 492
 BAILEY, P., 73
 Baltimore, 514
 BANNON, R. F., 436
 BARBE, W., 519, 521, 533, 551
 BARKER, R. G., 28
 BARRETT, H. O., 551
 Battle Creek, Mich., 160
 BEASLEY, J., 544, 551
 BEAUCHAMP, M., 482
 Behavior Description Chart, 506
 BELL, ALEXANDER G., 307
 Bender-Gestalt Test, 416, 431
 BENDER, L., 125, 150, 436
 Bernreuter Personality Inventory, 309
 BEST, H., 298, 303
 BETTS, E. A., 410, 411, 419
 BINET, A., 57
 BIRCH, J. W., 24, 144
 BLAIR, G. M., 442
 BLESSING, K. R., 88
- blind children, 233-266
 causes, 235-249
 definition of blindness, 233
 education of, 250-258
 incidence, 233
 preschool age, 16-18
 prevention, 240
 in regular classroom, 258-266
 BLOOM, S. W., 517, 518
 BONSALE, M. R., 531, 551
 BOOK, W. F., 73
 BORREGO, E., 479, 481
 BOWER, E. M., 339, 345
 BOWMAN, L. L., 551
 BOWMAN, P. H., 508
 brain injured children, 55, 129
 see also neurologically handicapped
 BRANDWEIN, P. F., 517
 BRAY, D., 75
 bright children, *see* gifted children
 British Mental Deficiency Committee, 70
 BRITTEN, R. H., 75
 BROCKOPP, E. W., 44, 70, 75
 Bronx High School of Science, 546
 Brookline, Mass., 19
 BROWNLEE, A., 454, 466
 BRUMBAUGH, F. N., 514
 BUCK, M. W., 287, 311
 BUCK, P., 78, 129
 BUCKWALD, E., 232
 Buffalo, N.Y., 164 f.
 BURMA, J. H., 481
 BURNHAM, W. H., 492
- CAIN, L. F., 3, 9
 California, 18, 346, 458
 CAMPBELL, C. M., 72
 CAMPBELL, K., 243
 CAPOBIANCO, R. J., 3, 23, 24
 CAPRON, C. H., 443
 cardiac child, 216-220
 CARROLL, H. A., 439, 443
 CARRY, C. P., 73
 Central Institute for the Deaf, 330

- cerebral palsy, 127 ff., 151-155
 education, 153
 incidence, 151
 types, 151
- CHAVEZ, S., 454, 474
- Chicago, 19, 71, 89, 164
- child labor laws, 393
- Child Who Never Grew, The*, 129
- Children's Apperception Test, 445
- chronic medical problems, children with,
 see handicapping medical conditions and specific handicap
- CLARK, K. B., 454, 460
- CLARK, T., 72
- Cleveland, 164, 515, 517, 530
- CNS impairment, 127-135
- COLADARCHI, A., 95, 353
- COLEMAN, J. C., 444
- Colfax School, 537
- color blindness, 278-285
- communication handicaps, 286-337
 see also specific type
- community action, 201 f.
- CONANT, J. B., 554
- congenital heart disease, 217-219
- CONKLIN, A. M., 544, 554
- CONNELLY, G., 92
- COOK, L. A., 28, 31
- Cornell University, 514
- CORNOG, W. H., 514
- Council for Exceptional Children, 88
- counseling, 510-518
- CRAFT, J. H., 74
- cretinism, 51, 129
- crippled children, see orthopedically handicapped children
- CROSSE, V. M., 243
- CROTHERS, B., 214
- CRUICKSHANK, W. M., 45, 96
- culturally handicapped, 452-489
 parental role, 462 ff.
 personality development, 460-465
 teacher understanding, 459
- CUTSFORTH, T. D., 254
- Dade County, Florida, 537
- DAVIES, E., 162, 187
- DAVIS, F. B., 552
- DAVIS, H., 290, 303
- DAVIS, K., 53, 67
- DAVIS, M. D., 314
- DAWE, A., 92
- deaf children, 294-310
 adjustment problems, 296, 304-310
 communication difficulties, 295 ff.
 education of, 297
 environmental influences, 294 ff.
 manual communication, 306
 parent's role, 298-302
 preschool age, 16, 18, 303
- DEAVER, G. G., 227
- DEHAAN, R. F., 491, 501, 508, 516
- DELA CRUZ, E., 243
- delinquency, 380-409
 community attitudes, 381 f., 395
 incidence, 396
 parental role, 403
 police role, 397-400
 prediction of, 388
 prevention of, 384, 393
 research needs, 400-409
 slow learners, 390-397
- DELP, H. A., 44, 76
- Denver, Colo., 472
- desegregation, 457
- Detroit, 160, 164, 453
- Devereux Foundation, 126, 428
- DEWEY, J., 99
- diagnostic tests, 24-25
- DiMICHAEL, S. G., 45, 118, 120, 122, 124
- DiPRETORO, D., 266
- DOLCH, E. W., 480
- DOLL, E. A., 74, 127, 144, 150, 428, 436
- DREWRY, H., 95
- DREWS, E. M., 531, 552
- DUNN, L. M., 2
- Dvotine Color Perception Test, 281 ff.
- EDGAR, J. W., 181
- education, defined, 99
- educationally retarded children, 410-451
 clinical services for, 411-419
 definition, 410
 diagnosis, 445
- Educational Policies Commission, 521
- educational sociology, 31, 32
- EISENSON, J., 164
- ELLIS, W. J., 195
- ELLSWORTH, S., 88
- EMERSON, RALPH WALDO, 474
- emotionally disturbed children, 338-409
 academic achievement, 348
 acceptance of, 342, 378
 causes, 341
 educational programs, 343-344, 353
 group therapy, 368
 identification of, 345-354
 incidence, 350
 intelligence of, 348
 prevention, 343
 socio-economic level, 349
 special classes, 343-344, 368-374
 teacher role, 343, 354 ff., 377
- encephalitis, 38, 50, 125
- endogenous mental deficiency, 48, 133, 136
- ENGLE, A. M., 120, 454
- English Mental Deficiency Act, 47
- EPHRON, B. K., 419
- epilepsy, 156-160
- ERICKSON, M. J., 45, 85

- ERICKSON, T. L., 454, 474
 ESSERY, F. V., 226
 EWING, I., and EWING, A., 297, 303
 exceptional children, 1-42
 census, 23
 definition, 1
 diagnosis, 24-25
 emotional needs, 34
 family problems, 33-42
 incidence, 2
 interdisciplinary approach, 24
 locating, 23
 mass media, 5
 parental attitudes, 34 ff.
 placement, 25-26
 exogenous mental deficiency, 48, 127 ff.
- FABIAN, A. A., 431-432, 436
 FARRELL, G., 226
 FERNALD, G., 426, 443, 447
 FERNALD, M. R., 164
 FERNALD, W. E., 120
 FITZGERALD, J. A., 443
 FLESCH, R., 443
 Florida, 474, 483
 FORAN, T. G., 443
 FORCE, D. J., 2
 Ford Foundation, 513
 foreign-born children, 453-454, 477
 FOURACRE, M. H., 162
 FRANK, L. K., 162, 171
 FRANKEL, E., 552
 FRENCH, E. L., 410, 427, 431, 436
 FRENCH, J. W., 552
 Froehlich's syndrome, 51
 FURNESS, E. L., 410, 437
- gargoylism, 67
 GARRISON, K. C., 2
 GATES, A. I., 431, 436, 438, 443
 Gates Associate Test, 415
 GETZELS, J. W., 533, 552
 gifted children, 490-554
 ability grouping, 538
 academic achievement, 510
 acceleration, 512, 524-528, 540
 administrative provisions, 536
 in American culture, 495-501
 characteristics, 503, 509, 530 ff.
 creativity, 533
 definition, 518
 education of, 491-495, 508-520
 enrichment, 515 f., 521-523
 guidance needs, 494, 517, 542
 identification of, 493, 501-508, 528
 intelligence testing, 509
 major work classes, 514
 nationality of, 530
 preschool age, 17, 19
 research needs, 529-554
 socio-economic level, 530
 teachers for, 546
 Gifted Student as Future Scientist, 517
 GINSBURG, E., 75
 GLUECK, S., and GLUECK, E., 384
 glycogen storage disease, 67
 GODDARD, H. H., 57, 72
 GOLDBERG, M., 491, 529, 552
 GOLDFARB, W., 61, 62, 67
 GOLDSTEIN, H., 76
 GOLDSTEIN, K., 150, 419
 GOLDSTEIN, R., 337
 GOODRICH, H. B., 511
 GORDON, I. J., 380
 GORDON, R. G., 214
 Goucher College, 514
 GOWAN, J. C., 552
 GRANDCENT, C. H., 324
 GRAVER, P. A., 374
 GRAY, D., 234, 259
 GREBLER, A. M., 95
 GREENE, S. E., 454, 482
Guidance Handbook, 516
- HAINES, T. H., 74
 HALL, T., 514
 HAMILTON, D., 480, 481
 handicapped children, *see* specific handicap
 handicapping medical conditions, 196-232
 see also specific handicap
 HANSEN, C. F., 93
 hard-of-hearing children, 286-294
 definition, 299
 education, 288-293
 in regular classroom, 293
 HARPER, L. E., 354
 HATHAWAY, S. R., 384
 HATHAWAY, W., 266
 HAUBRICH, V. F., 552
 HAVIGHURST, R. J., 339, 390, 508, 516, 552
 hearing aids, 21, 290, 301
 hearing-handicapped children, 286-310
 heart disease in children, 216-220
 Heath rails, 131
 HEBER, R., 43
 HEGGE, T., 91
 HEIDER, G. M., 287, 295, 296, 303, 304
 Heller's disease, 67
 HEMPHILL, F. M., 243
 HERLITZ, G., 75
 HICKEY, P. J., 520
 high mental ability, *see* gifted children
 HILDRETH, G., 443, 514
 HILL, A., 94
 HILL, G. E., 533, 552
 HILLEBOE, G. L., 74
 HOBSON, J. R., 552
 HOECK, L. E., 243

- HOLLINGSWORTH, L. S., 443, 509
 homebound instruction, 198-205
 Horace Mann-Lincoln Institute, 538, 544
 HORN, E., 423
 hospitalized children, 198-205
 HOWE, J. W., 368
 Hunter College, 514, 535

 idiot, defined, 47
 idiot savant, 64
 Illinois, 20, 71
 imbecile, defined, 47
 Indian children, 466-473
 Indianapolis, 514
 INGRAM, C., 92
 intelligence, conceptualization of, 53-57
 intelligence quotient, 46
 Interim Hayes-Binet Test, 276
Isolation, A Case of, 67-68
 ITARD, 134
 itinerant teachers, 200

 JACKSON, P. W., 533, 552
 Jacksonville, Ill., 20
 Jaederholm Association Test, 415
 JANN, G. R., 162
 Jersey City, New Jersey, 180
 JERVIS, G., 44, 45
 John Tracy Clinic, 20
 JOHNSON, G. O., 87, 89, 90, 113
 JOHNSON, W., 314
 JUSTMAN, J., 552

 KAHL, J. A., 535, 553
 KANNER, L., 3, 33, 44, 53
 KASTEIN, S., 150
 KELLER, HELEN, 194
 KELLY, E., 90, 92, 94
 KERBY, C. E., 234, 235, 243
 KIBBE, P. R., 481
 KIMBALL, B., 545, 554
 KINSEY, V. E., 243
 KIRK, S. A., 19, 45, 87, 89, 90, 91, 111
 KIRSHNER, S., 532, 554
 KLEFFNER, F. R., 287, 330, 337
 KNAPP, R. J., 511
 KOENIG, F., 480, 482
 KOUGH, J., 516
 KRUGMAN, M., 353
 KUHLMANN, F., 74
 KVARACEUS, W. C., 339, 380, 381 ff.

 LAFFERTY, C. W., 553
 LANDAU, W. M., 337
 LANE, H., 482
 Lansing, Michigan, 531
 LASSMAN, G., 299, 300, 302
 Laterality appraisal, 431
 LAUFF, R. J., 552
 LEE, J. J., 27, 164
 LEE, M. V., 163

 LEHMAN, H. C., 553
 LEHTINEN, L. E., 136, 140, 141
 LELONG, M., 243
 LEMKAU, P., 75
 LENNOX, M. A., 156
 LENT, J., 287, 327
 LESSINGER, L., 553
 Letchworth Village, 49, 50
 LEVY, J., 95
 LEWIN, K., 380
 LEWIS, E. O., 74
 LEWIS, R. S., 129, 140, 141
 Lexington School, 18
 lip reading, 290, 299
 LIPPITT, R., 380
 LOHMAN, V. L., 75
 Los Angeles, 368, 514, 521
 LOVELL, C., 92
 LOWENFELD, B., 234, 250
 LOWENFELD, V., 255
 LULL, H. G., 443

 MCCARTHY, D., 315
 MCCLELLAND, D. C., 554
 MCGINNIS, M., 337
 MCGOVNEY, M., 439, 443
 MACKIE, R. P., 2, 44, 162, 177, 339
 MCKINNIE, A. E., 72
 Maine, 72
 major work classes, 514
 malnutrition, 49
 MANN, H., 553
 MARIENFELD, C. J., 216
 MARTENS, E., 74, 75, 77, 92, 94
 MARTORANA, A., 162
 Maryland, 73
 MASE, D. J., 340
 Massachusetts, 18
 MAY, R., 419
 MEAD, M., 490, 493, 548, 553
 MEANS, F. C., 482
 MEISTER, M., 513
 MELCHER, J. W., 88
 meningitis, 50
 mental retardation, 43-124
 definitions, 43, 44, 46
 degrees of, 47
 diagnosis, 52
 and emotional disturbance, 53-69
 environmental influences, 49-52
 familial type, 48
 hereditary defects, 48-49
 incidence, 47, 69-76, 86
 prevention, 52
 research studies, 44
 socio-economic stratification, 71
 mentally retarded children, 43-124
 community programming, 103-111
 educable, defined, 86
 educational practices, 85-96, 105
 goals, 76-85

- guidance needs, 111-117
identification of, 91, 108
legislation for, 96
parental problems, 106 ff.
physical defects, 78
preschool period, 17, 19, 87
regular classroom program, 88, 90
residential school programs, 102
role of the home, 83
secondary school programs, 91
social service needs, 84
special classes and schools, 87
trainable, defined, 44, 71
vocational rehabilitation, 118-124
- MERRILL, M. A., 71, 74, 509
METRAUX, R., 548, 553
MEYER, E., 214
MEYERS, G. C., 440, 443
MEYERSON, L., 27
MICHAL-SMITH, H., 58
Michigan, 71
migrant children, 457, 482-489
MILES, C. C., 553
MILHORAT, A. T., 230
MILLS, M., 521
Minnesota, 458
minority group children, 460-465
minority status of handicapped, 27-33
MOLYNEAUX, D. M., 327
mongolism, 38, 51, 129
MONROE, M., 423
MONROE, W. S., 72
moron, defined, 47
MULGRAVE, D., 287, 322
MULLAN, E. H., 72
MULLEN, F. A., 3, 15, 71, 89
multiple handicaps, 125, 147, 164, 168
MURPHY, G., 56
MURRAY, H. A., 436
muscular dystrophy, 227-232
MYKLEBUST, H., 287, 300, 303, 308, 332
- NASON, L. J., 545, 553
National Association for Retarded Children, 93
National Association for the Prevention of Blindness, 233, 235
National Merit Scholarship Corporation, 531
National Society for Crippled Children, and Adults, 205, 228
National Tuberculosis Association, 221
National Urban League, 28
NEE, M. M., 71
Negro youth, 452, 457
neurologically handicapped, 125-160, 330-337
 education of, 135-144
 perceptual disturbances, 139 ff., 148
 syndromes, 127-135
 terminology, 144-150
 see also specific handicap
neurotic children, *see* emotionally disturbed children
New York City, 18, 164, 391, 474
New York State, 458
NEWLAND, T. E., 3
NICKELL, V. L., 76
NISSONGER, H. W., 94
- ODEN, M. H., 491, 510
Ohio, 71
Oregon, 472
orthopedically handicapped children, 161-195
 abilities, 162-171
 adjustment, 194
 adolescence, 171-176
 curricular adaptations, 163 ff.
 educational needs, 162-171, 195
 intelligence, 163 ff.
 preschool age, 6, 19
 school housing, 177, 182
ORTON, S. T., 431, 436
Oseretsky Scale, 131
Other Child, The, 124
OTTO, H. J., 181
- PARKER, V. E., 74
partially sighted children, 266-278
 definition, 233
 education of, 266-269
 incidence, 233
 psychological testing of, 276
 in regular classroom, 270-277
 segregation of, 234
PATZ, A., 243
PEARSON, G., 35
PECKHAM, R. A., 115, 116
PEIZER, E., 162, 183
PELONE, A. J., 270
PERLSTEIN, M. A., 151
personality tests, *see* specific test
PETERS, G. A., 234, 279
phenylketonuria, 67
physical education, 187-195
physically handicapped children, *see* specific disability
PINTNER, R., 164, 309
Pittsburgh, Pa., 515, 537
PLAUT, R. L., 553
police-teacher amity, 397-400
poliomyelitis, 206-215
POPE, A., 56
PORTER, R. B., 75
PORTEUS, S. D., 384
Portland, Ore., 504, 544
PREGLER, H. O., 515, 523
prejudice, defined, 28
PRESSEY, S. L., 512
problem youth, *see* delinquency

- pseudo-mental deficiency, 52, 58
 psychological services, 23-26
Psychopathology and Education of the Brain Injured Child, 129
 psychotic children, *see* autism, infantile, emotionally disturbed children, and schizophrenia
 Puerto Rican children, 458-459, 472, 476
 radiation, dangers of, 221
 RAPAPORT, D., 54
 reading retardation, 412-451
 analysis, 425 ff.
 emotional disturbances in, 431-434
 psychological diagnosis, 427-436
 secondary level, 435
 REDIN, B., 75
 REDL, F., 340, 400
 Reed College, 549
 rehabilitation, 187-195
 definition, 188
 physical education, 192 ff.
 team approach, 189
 REIFEL, B., 468
 remedial education programs, 411-419, 444-449
 residential school selection, 39
 retarded children, *see* mentally retarded children
 retrolental fibroplasia, 242 f.
 REX, B. B., 516, 552
 rheumatic fever, 217 f.
 RICHARDS, E. A., 198
 ROACH, R. E., 287, 294
 ROBINS, A., 221
 ROBINSON, H. M., 431, 436
 ROE, A., 533, 554
 ROGERS, C. R., 11, 376, 380
 ROOSEVELT, F. D., 194, 209
 Rorschach Test, 62, 309, 434, 445
 ROSANOFF, A. J., 72
 RUSSELL, D. H., 439, 443
 Salk vaccine, 206
 SANCHEZ, G. I., 9
 SARASON, S. B., 45, 105, 114
 SAUNDERS, L., 10
 SCHINNERER, M. C., 93
 schizophrenia, 66
 SCHONELL, F. J., 441, 443
 school housing for crippled children, 177-182
 school psychology, 23-26, 272, 411-419
 SEAGOE, M., 553
 secondary handicaps, 16 f.
 SEGUIN, 134
 SEIDENFELD, M. A., 206
 serological tests, 50
 SERRA, M. C., 410, 420
 SESSIONS, M. A., 73
 SHANNON, D. C., 554
 SHATTUCK, M., 88
 SHERIDAN, M. C., 516
 SILLER, J., 162, 183
 SLAVSON, S. R., 368, 374
 SLOAN, W., 91
 slow learners, 390-397
 SMITH, M. B., 164, 554
 Smith College, 514
 SNYDER, W. E., 75
 social psychology of the handicapped, 27-33
 Social Science Research Council, 534
 socially handicapped children, *see* delinquency
 societal attitude toward handicapped, 3, 27, 35, 40, 201
 Southern project, 547
 SPACHE, G., 439, 443
 Spanish speaking children, 474-482
 special education
 financing, 6-9, 86, 90
 integration, 13, 21
 legislation, 86
 preschool area, 15-23
 research, 95
 see also specific area
 special teachers, *see* teachers of exceptional children
 speech-handicapped children, 286-287, 311-337
 articulatory, 313, 319, 322-327
 baby talk, 313, 324
 and classroom teacher, 327-329
 delayed speech, 323
 factors affecting, 312
 incidence, 317
 recognition of, 318
 stuttering, 314, 327-329
 voice disorders, 316, 320
 spelling retardation, 437-443
 SPIESTERSBACH, D. C., 287, 311, 315
 STAFFELBACH, E. H., 442
 STAIGER, R. C., 443
 Stanford Achievement Test, 445
 Stanford Binet Scale, 26, 63, 64, 68, 71, 165, 214, 276, 414, 428, 439, 445, 509, 531
 STANTON, M., 164
 STELLRE, B., 551
 STEVENS, G. D., 144
 STEVENS, H., 90
 STIVERS, E., 508, 516, 552
 St. Louis, 71, 164
 STODDILL, R. M., 385
 STOUFFER, S. A., 554
 St. Paul, 543
 STRACHEN, L., 74
 STRANG, R., 517, 532, 554
 STRAUSS, A. A., 127, 129, 135, 150

- Strauss syndrome, 148-150
 STREET, R. F., 443
 STREETER, L. C., 72
 STRENG, A., 287, 288
 STRODTBECK, F. L., 534, 554
 stuttering, 314, 327-329
 SUDWEEKS, J., 443
 Syracuse, N.Y., 75

 talented youth, *see* gifted children
 Talented Youth Project, 537
 TALLENT, N., 554
 teachers of exceptional children
 attitudes toward handicapped, 11
 qualifications, 203
 school setting, 11, 12
 TENNY, J. W., 3, 27, 156
 TERMAN, L. M., 72, 490, 509, 527, 554
 TERRY, T. L., 242
 TERWILLIGER, W. B., 122
 Texas, 458
 Thayer Conference, 24
 Thematic Apperception Test, 309, 416, 434
 THORNE, F. C., 114
 THURSTONE, L. L., 429, 436
 THURSTONE, T. G., 436, 442
 TIDYMAN, W. F., 442, 443
 TOLAND, M., 266
 Toledo, Ohio, 164
 TREADWAY, W. L., 72, 73
 TREGOLD, A. F., 59, 75
 TRIMBLE, V. E., 554
 TRUSLER, J. W., 512
 tuberculosis in children, 221-227
 TYLER, L., 380

 underachievers, 544
 United Cerebral Palsy Association, 50, 228
 United Nations, 469, 476, 489
 U.S. Bureau of Indian Affairs, 468 ff.
 U.S. Department of Labor, 72
 U.S. Office of Education, 77, 200
 U.S. Office of Vocational Rehabilitation, 120, 122
 U.S. Public Health Service, 126, 196, 221

 University of California at Los Angeles, 444
 University of Chicago, 355 ff., 391

 Vander Lugt scales, 131
 VAN RIPER, C., 313
 Vassar College, 20
 Vineland Social Maturity Scale, 64, 68
 Vineland Training School, 126
 visually handicapped children, 233-285
 vocational rehabilitation, 31, 258
Vocational Rehabilitation of the Mentally Retarded, 120
 VOELKER, P. H., 454
 VORHAUS, P. G., 433, 436

 WAGNER, G., 554
 Wales, 70
 WALLIN, J. E. W., 44, 69, 71, 90
 WALTRIP, B., 480, 482
 WATTENBERG, W. W., 339, 397
 Wayne County Training School, 129
 WECHSLER, D., 436
 Wechsler Intelligence Scale for Children, 276, 414, 429, 445
 WEINGOLD, J., 95
 WEITZ, H., 380
 WHEATLEY, G. M., 221
 WHITE, R., 380
 WILKINS, W. L., 512
 WILLIAMS, C. W., 518
 WILSON, C. C., 226
 WILSON, F. T., 514, 522
 Wisconsin, 472
 WITMER, H. L., 199
 WITTY, P., 164, 490, 508 ff., 521
 WORCESTER, D. A., 513
 World Health Organization, 75
 WORTIS, J., 145, 150
 WRIGHT, B., 339, 354
 WRIGHTSTONE, J. W., 554
 WUNCH, W. L., 75

 YATES, D. H., 419
 YOUNG, J. E., 552

 ZACHARIAS, L., 243
 ZIM, H., 522



